SAMSUNG

VIDEO CASSETTE RECORDER

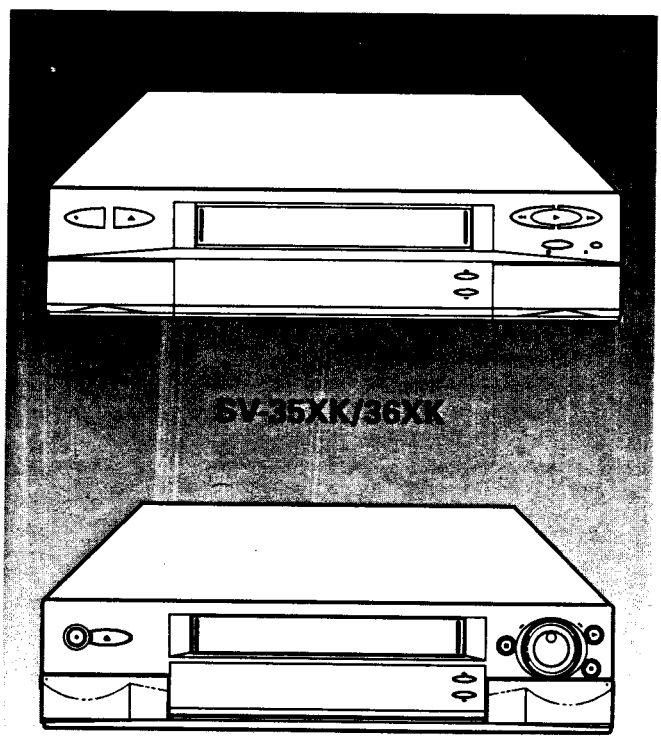
SV-35XK/SV-36XK
SV-45XK

VHS PAL

SERVICE Manual

For mechanical disassembly and adjustment, refer to the "Mechanical Manual" (DX5-R/RC, DX6-R/RC ⟶ 64739-0067-00).

VIDEO CASSETTE RECORDER



SV-45XK

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1. Precautions Statements

1-1 Safety Precautions

1-1-1 General

1. Observe the original lead dress. Replace all parts which have been overheated or damaged.

2. After servicing, make sure it that all protective devices (such as insulation barriers and insulation paper shields) are properly installed.

3. Use an isolation transformer when servicing.

4. After servicing, make the following leakage current checks to prevent to shock hazards.

1-1-2 Leakage Current Cold Check

1. Unplug the AC cord and connect a jumper between the jumpered AC plug and each exposed metallic cabinet part on the equipment (such as screw heads, connectors and control shafts). When the exposed metallic part has a return path to the chassis, the reading should be between 1 to 5.2 megohms. When the exposed metal does not have a return path to the chassis, the reading should infinite.

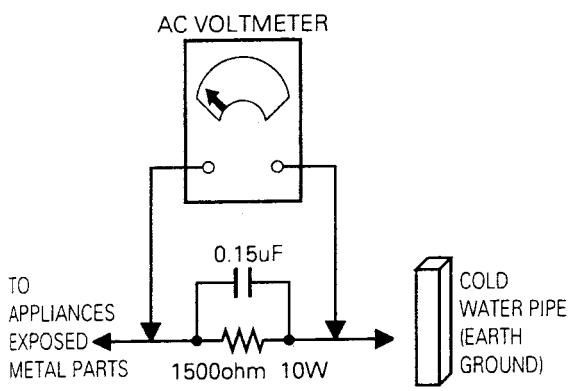


Fig.1 AC Leakage test

1-1-3 Leakage Current Hot Check (See Fig. 1)

1. Plug the AC cord directly into the AC outlet. (Do not use an isolation transformer.)

2. Connect a 1.5K, 10 watt resistor, in parallel with a 0.15uF capacitor. Connect this RC network between each exposed metallic part on the set and a good earth ground (such as a cold-water pipe).

3. Use an AC voltmeter, (1000 ohms/volt or better sensitivity) to measure the potential across the resistor.

4. Check each exposed metallic part, and measure the voltage at each point.

5. Reverse the AC plug in the AC outlet and repeat of the above measurements.

6. The potential at any point should not exceed 0.75 volts RMS. A leakage current tester may be used to make the hot check; the leakage current must not exceed 0.5 milliamp. If a measurement exceeds these limits, there is a possibility of a shock hazard: The equipment should be rechecked before being returned to the customer.

1-2 Electrostatically Sensitive (ES) Devices

Some semiconductor (solid state) devices are damaged easily by static electricity. Such components are called "Electrostatically Sensitive" (ES) devices. Examples are integrated circuits, some field effect transistors and semiconductor "chip" components.

The following techniques will reduce the occurrence of component damage caused by static electricity:

1. Immediately before handling any semiconductor component or semiconductor-equipped assembly, drain off any electrostatic charge on your body by touching a known earth ground. Alternatively, wear a commercially available discharging wrist-strap device, which should be removed for potential shock reasons prior to applying power.

2. After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil. This will prevent accumulation of electrostatic charge.

3. Use only a ground-tip soldering iron to solder or unsolder ES devices.

4. Use only an anti-static solder removal device. Some solder removal devices not classified as "antistatic" can generate electrical charges sufficient to damage ES devices.

5. Do not use freon-propelled chemicals. (They generate electrical charges sufficient to damage an ES device.)

6. Do not remove a replacement ES devices from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive form, aluminum foil or comparable conductive material).

7. Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.

Caution : Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.

8. Minimize body motions when handling unpackaged replacement ES devices. (Otherwise, harmless motions such as the brushing together of clothes to the lifting of a foot can create sufficient charge to damage an ES device.)

1-3 Safety Instructions

1. Read all safety and operating instructions.

2. Retain Instructions for future reference.

3. Heed all warnings on the unit and in the operating instructions.

4. Cleaning : Unplug this unit from the wall outlet before cleaning. Do not use liquid or aerosol cleaners. Use a dry cloth for dusting cabinet.

5. Attachment : Do not use attachments not recommended by the manufacturer.

6. Water and Moisture : Do not use this unit near water.

7. Accessories : Do not place this unit on an unstable cart, stand, tripod, bracket, or table. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the unit. Any mounting of the unit should follw the manufacturer's instructions and should use a mounting accessory recommended by the manufacturer.

8. Ventilation : Slots and openings in the cabinet are provided for ventilation to protect the unit from overheating. These openings must not be blocked or covered. Never place the unit on a bed, sofa, or rug, never place it near a radiator or heat register. Do not be place in a book case or rack unless proper ventilation is provided.

9. Power Sources : This unit should be operated only from the type of power source indicated on the label. If you are not sure of the type of power supply to your home, consult the appliance dealer or local power company.

10. Grounding and Polarization : This unit may be equipped with either a polarized 2-wire AC line plug (a plug having one blade wider than the other) or a 3-wire grounding type plug, a plug having a third (grounding) pin. The 2-wire polarized plug will fit into the power outlet only one way. This is a safety feature. If you are unable to insert the plug fully into the outlet, try reversing the plug. If the plug still fails to fit, contact your electrician to replace the outlet. Do not defeat the safety purpose of the polarized plug.

11. Power-Cord Protection : Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them. This applies especially to cords of plugs and convenience receptacles, at the point where they exit from the unit.

12. Lightning : For added protection during a lightning storm, or when the unit is left unattended and unused for long periods of time, unplug it from the wall outlet and disconnect the antenna or cable system.

13. Power Lines : An outside antenna system should not be located in the vicinity of overhead power lines or other electric light or power circuits. When installing an outside antenna system, extreme care should be taken to keep from touching such power lines as contact with them might be fatal.

14. Overloading : Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.

15. Objects and Liquids : Never push objects of any kind into the unit as they may touch dangerous voltage points, or short out parts that could result in a fire or electric shock. Never spill liquids of any kind onto the unit. Should a spill occur, unplug the unit and have it checked by a technician before using.

16. Damage Requiring Service : Unplug this unit from the wall outlet and refer servicing to qualified service personnel under the following conditions :

1) When the power-supply cord or plug is damaged.
2) If any liquid has been spilled into it, or if object have fallen inside.
3) If the unit has been exposed to rain or water.
4) If the unit does not operate normally by following the standard operating instructions. (Adjust only those controls that are covered by the operating instructions.) Improper adjustment of other controls may result in damage that might require extensive work by a qualified technician to restore the unit to its normal operation.

Warning :
Lithium battery - Danger of explosion if incorrectly replaced. Must only be replaced by a battery of the same make and type. Used batteries should be returned to the supplier.

1-3 Safety Instructions (Continued)

5) If the unit has been dropped or the cabinet has been damaged.
6) When the unit exhibits a distinct change in performance.

17. Replacement parts : When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original. Unauthorized substitutions may result in fire, electric shock or other hazards.

18. Safety Check : Upon completion of any service or repairs to this unit, the safety check procedure should be performed.

Important Safety Notice :
There are spacial components in this equipment which are important for safety. These parts are marked by ⚠ in the schematic diagram, exploded views and replacement parts list. It is essential that these critical parts should be replaced with manufacturer's specified parts to prevent to shock, fire or other hazards. Do not modify the original design without permission of manufacturer.

2. Reference Information

2-1 List of Abbreviations and Acronyms

2-1-1 Abbreviations

Abbreviation	Definition
ADJ	Adjustment
AMP	Amplifier
ASS'Y	Assembly
ATT	Attenuator
AUTO	Automatic
AUX	Auxiliary
BATT	Battery
BLK	Black
BUFF	Buffer
CAM	Camera
CAP	Capstan
CAR	Carrier
CASS	Cassette
CH	Channel
CHROMA or C	Chrominance
CLK	Clock
CLP	Clamp
CN	Connector
COM	Common
COMB	Comb Filter
COMP	Composite
CTL	Control
dB	Decibel (Measurement Unit)
DEMOD	Demodulator
DET	Detect
EMP	Emphasis
ENV	Envelope
EQ	Equalizer
EXT	External
FL	Filter
Freq	Frequency
FWD	Forward
GEN	Generator
GND	Ground
GRN	Green
GRY	Gray
HD	Head
Hz	Hertz
IR	Infrared
INT	Interrupter
MAX	Maximum
MIC	Microphone
MIN	Minimum
MIX	Mixer
MTX	Matrix
NOR	Normal
OSC	Oscillator
PRE-AMP	Pre-Amplifier
PWR	Power
REC	Recording
REF	Reference
REG	Regulator
REV	Reverse
REW	Rewind
RST	Reset
SHP	Sharpness
STB	Strobe
S/W	Switch
SYNC	Synchronization
TR	Transistor
TRK	Tracking
UL	Unloading
UNREG	Unregulated
u-COM	Microprocessor
X-TAL	Crystal
4.43MHz	Color Sub Carrier

2-1-2 Acronyms

Acronym	Definition
ACC	Automatic Color Control
ACK	Automatic Color Killer
A/D	Analog/Digital
AE	Auto Exposure
AF	Auto Focus
AFC	Automatic Frequency Control
AFM	Audio Frequency Modulation
AGC	Automatic Gain Control
APC	Automatic Phasel Control
ATF	Automatic Track Finding
BF	Burst Flag
BFG	Burst Flag Gate
BLC	Back Light Compensation
BPF	Band Pass Filter
B/W	Black/White
CAMCORDER	Camera Recorder
CBA	Circuit Board Assembly
CCD	Charge Coupled Device
CM	Capstan Motor
CNR	Chroma Noise Reduction
CRT	Cathode Ray Tube
CS	Chip Selector
CVF	Color View Finder
DA	Digital/Analog
DC	Direct Current
DD	Direct Drive
DL	Delay Line
DOC	Drop Out Compensater
DY	Deflection Yoke
E-E	Electronic to Electronic
ENV	Envelope
EVF	Electronic View Finder
F/E	Flying Erase
FET	Field Effect Transistor
FF	Fast Forward, Flip-Flop
FG	Frequency Generator
FM	Frequency Modulation
FPC	Flexible Pattern Circuit
FPS	Forward Picture Search
FSC	Frequency Sub Carrier
GC	Gain Control

Acronym	Definition
HD	Horizontal Drive
HG	Hall Generator
HPF	High Pass Filter
IC	Integrated Circuit
I/O	Input/Output
IRE	Institute of Radio Engineers
LCD	Liquid Crystal Display
LED	Light Emitting Diode
LM	Loading Motor
LP	Long Play
LPF	Low Pass Filter
M/F	Manual Focus
MODED	Modulator-Demodulator
NC	Not Connected
NR	Noise Reduction
OFD	Overflow Drain
OP AMP	Operational Amplifier
PB	Play Back
PCM	Pulse Coded Modulation
PG	Pulse Generator
PLA	Programmable Logic Array
PLL	Phase Locked Loop
P-P	Peak to Peak
P/S	Pause/Still
PWM	Pulse Width Modulation
RAM	Random Access Memory
RF	Radio Frequency
RG	Reset Gate
ROM	Read Only Memory
RPS	Reverse Picture Search
SCK	Serial Clock
SFG	Supply FG
SHD	Sample Hold Data
SHP	Sample Hold Precharge
SI	Serial Data Input
SO	Serial Data Output
SP	Standard Play
SN	Signal to Noise Ratio
SYSCON	System Control

Acronym	Definition	Acronym	Definition
TP	Test Point		
VCO VCR VR V-SYNC VXO	Voltage Control Oscillator Video Cassette Recorder Variable Resistor Vertical-sync. Variable Crystal Oscillator		
W/B	White Balance		
Y/C	Luminance/Chrominance		

2-2 Chip Replacement

2-2-1 Precaution for the Chip Replacement

1. Do not touch the part directly with the soldering iron. ICs, especially TSOPs, are easily damaged by heat.
2. Do not heat parts rapidly. Some parts can be damaged by sudden heating. Preheat the part to about 100°C for several minutes before installing it.
3. Use soldering tip temperature of about 240°C. (on larger parts, use a slightly higher temperature, about 280°C.)
4. Thin (0.3mm) solder for miniature parts does not contain adequate flux. Supplementary flux is usually needed.

⌘ A/V systems are manufactured using flux which can be cleaned by water. When replacing the part or troubleshooting, use proper flux and solder which can be cleaned by water. The soldering area will corrode, if proper flux and solder are not used.

5. Be careful not to damage the circuit pattern, especially when removing components.
6. Because of the many pins, cleanliness of the foil pattern is extremely important after the IC is removed.
7. Avoid solder bridges. Remove any that occur.
8. Position the part carefully. Be very precise in positioning the IC. Soldering opposite pins first holds the IC in place and makes soldering the other pins easier.
9. Do not reuse parts once they have been removed.
10. Check for solder joints, especially on miniature parts with small leads.
11. A defective trimming resistor cannot be adjusted externally. Replace it with an ordinary variable resistor.
12. Inspect the work with a magnifier.

2-2-2 Tools for Chip Replacement

1. Thin-tip soldering iron
2. Small flat-blade-tip type soldering iron
3. Special desoldering tip iron
4. Airblower unit
5. Flat package pick-up
6. Flux (can be cleaned by water)
7. 0.3mm solder (can be cleaned by water)
8. Desoldering wire
9. Tweezers

2-2-3 Chip Resistors and Chip Capacitors

2-2-3 (a) Types of Parts

1. Thick film chip resistors
2. Carbon film chip resistors
3. Metal film chip resistors
4. Chip ceramic capacitors
5. Chip trimming resistors

2-2-3 (b) Removing Parts

1. Use two thin-tip soldering irons.
2. Soldering tip temperature should be about 280°C.
3. Simultaneously heat both ends of the part.
4. While heating, grasp the part with the tips of the soldering irons and remove it.
5. Use desoldering wire to completely remove the old solder from the part location of the board.
6. A clean pattern for installing the new part is essential

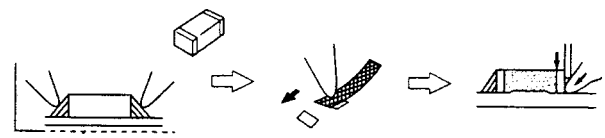


Fig. 1

2-2-3 (c) Installing Parts

1. Clean the area where the new part is to be mounted.
2. Apply flux.
3. Set part correctly into position to prevent it from shifting.
4. Place the soldering iron tip close to the part contact without actually touching it. Melt thin (0.3mm) solder between the tip and part so that it flows into the part contact.
5. Check work quality with a magnifier.

2-2-4 Chip Tantalum Capacitors and Chip Filters

2-2-4 (a) Types of Parts

1. Chip inductors
2. Chip tantalum capacitors
3. Chip tantalum electrolytic capacitors
4. Chip aluminum electrolytic capacitors
5. Chip transformers
6. Chip filters

2-2-4 (b) Removing Parts

1. If using a special desoldering iron :

1) Select soldering tip according to part size.
2) When the solder melts, remove the part.
3) Bring the tip into contact with the soldered points.
4) Remove the old solder with desoldering wire.

2. Using two soldering irons :

1) Use small flat-blade tips.
2) Heat both ends of the part simultaneously.
3) When the solder melts, grasp and remove the part with the soldering iron tips.
4) Remove the old solder with desoldering wire.

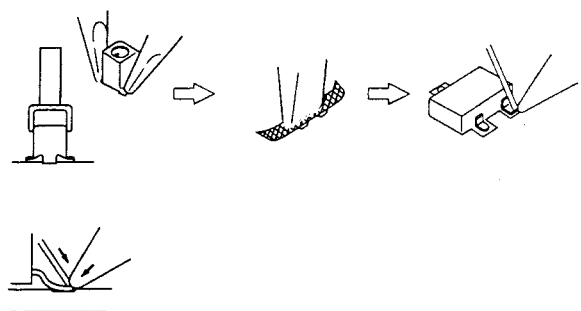


Fig. 2

2-2-4 (c) Installing Parts

1. Clean the area where the new part is to be mounted.
2. Apply flux.
3. Set part correctly into position to prevent it from shifting.
4. Use a sharp soldering iron tip. Apply heat close to the part contact without actually touching it. Melt thin solder between the tip and part so that it flows into the part contact.
5. Check work quality with a magnifier.

2-2-5 Chip VRs, Chip Trimmer Capacitors, Diodes and TR.

2-2-5 (a) Types of Parts

1. Chip VRs
2. Chip trimmer capacitors
3. Diode
4. Transistors

2-2-5 (b) Removing Parts

Using two soldering irons :

1. Use small flat-blade tips.
2. Heat the leads of the part simultaneously.
3. When the solder melts, grasp and remove the part with the soldering iron tips.
4. Remove the old solder with desoldering wire.

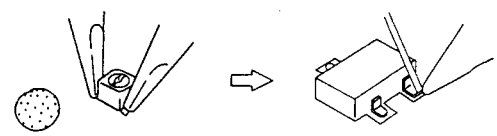


Fig. 3

2-2-5 (c) Installing Parts

1. Clean the area where the new part is to be mounted.
2. Apply flux.
3. Set part correctly into position to prevent it from shifting.
4. Use a sharp soldering iron tip. Apply heat close to the part contact without actually touching it. Melt thin solder between the tip and part so that it flows into the part contact.

2-2-6 Chip ICs

2-2-6 (a) Types of Chip ICs

1. SOP (Small Outline Package) IC
2. SSOP (Shrink Small Outline Package) IC
3. VSOP (Very Small Outline Package) IC
4. QFP (Quad Flat Package) IC
5. VQFP (Very Quad Flat Package) IC
6. PLCC (Plastic Leaded Chip Carrier) IC
7. TSOP (Thin Small Outline Package) IC

2-2-6 (b) Removing Part

1. If using a special desoldering iron :

1) Select the tip according to the size and shape of the IC.
2) "Tin" the tip with a small amount of solder on the IC leads.
3) Set the tip squarely over the IC leads.
4) When the solder melts, carefully twist the iron.
5) Raise and remove the IC.

2. Using a shaped airblower unit :

1) Select the correct nozzle.
2) Select the temperature and airblow. (suggested - temperature : 7, airblow : 4)
3) Engage the IC removing tool.
4) Use the airblow to preheat the IC for about 5 seconds, then heat with the nozzle until the IC remover lifts the part from the board.

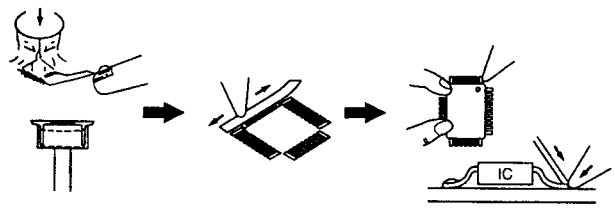


Fig. 4

2-2-6 (c) Installing Parts

1. Use desoldering wire to remove the previous solder.
2. Clean the location.
3. Apply flux.
4. Position the ICs and solder two pins at opposite sides.
5. Use a sharp tipped soldering iron and carefully solder each pin. (After gaining experience, a thicker tip can be used for better work efficiency).
6. Remove any solder bridges with desoldering wire.
7. Inspect the work with a magnifier.

2-2-7 How to read leadless (chip) component value

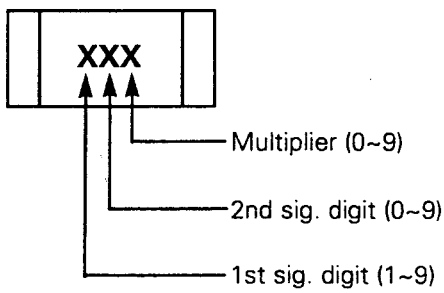
2-2-7 (a) Check the Followings Before SMD Troubleshooting

* Cracked or chipped component body
* Cracked or separated solder joints
* Peeling end terminations or fractured leads
* Rejection of solder from copper pads or component
* Foreign matter on copper pads
* Solder bridges

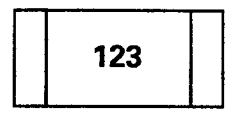
2-2-7 (b) SMD (Surface Mounted Devices) Identification

1. Chip resistor identification

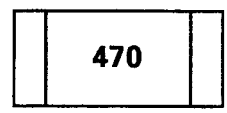
1) Standard chip resistor code



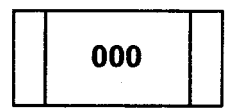
Examples



= 12 X 103 (1000) = 12000 Ω
= 12K Ω



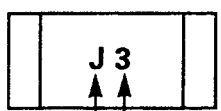
= 47 X 100 (1) = 47 Ω



= Chip jumper = 0 Ω

2. Chip capacitor identification

1) Standard two place code



= 2.2 X 103 (1000)
= 2200 pF

Multiplier (0~9)

Value (1st and 2nd sig. digits)
- See table 1

Examples

S2 = 4.7 X 100 = 470 pF

b0 = 3.5 X 1.0 = 3.5 pF

Note : Ceramic chip capacitor have no marking.

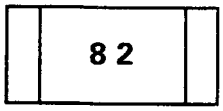
Value (33 value symbols) - Upper and lower case letters					Multiplier
A - 1.0	H - 2.0	b - 3.5	f - 5.0	X - 7.5	0= X 1.0
B - 1.1	J - 2.2	q - 3.6	T - 5.1	t - 8.0	1= X 10
C - 1.2	K - 2.4	Q - 3.9	U - 5.6	Y - 8.2	2= X 100
D - 1.3	a - 2.5	d - 4.0	m - 6.0	y - 9.0	3= X 1000
E - 1.5	L - 2.7	R - 4.3	V - 6.2	Z - 9.1	4= X 10000
F - 1.6	M - 3.0	e - 4.5	W - 6.8		5= X 100000 etc.
G - 1.8	N - 3.3	S - 4.7	n - 7.0		

< Table 1 >

2) Alternate two place code

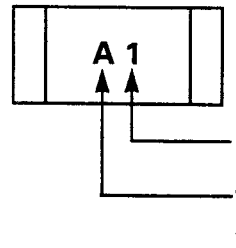
- Values below 100pF - Value read directly

= 5 pF



= 82 pF

- Values 100pF and above - Letter/Number code



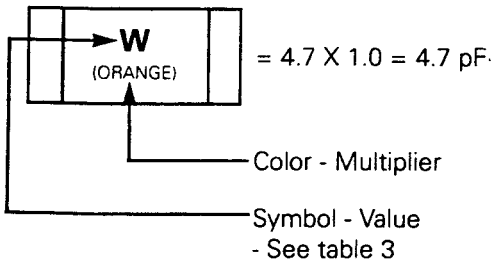
= 10 X 10
= 100 pF

= 33 X 103 (1000)
= 33000 pF
= 0.33 uF

Value (24 value symbols) - Upper case letters only					Multiplier
A - 10	F - 16	L - 27	R - 43	W - 68	1= X 10
B - 11	G - 18	M - 30	S - 47	X - 75	2= X 100
C - 12	H - 20	N - 33	T - 51	Y - 82	3= X 1000
D - 13	J - 22	P - 36	U - 56	Z - 91	4= X 10000
E - 15	K - 24	Q - 39	V - 62		5= X 100000 etc.

< Table 2 >

3) Standard single place code



= 4.7 X 1.0 = 4.7 pF

Examples

R (Green) = 3.3 X 100 = 330 pF

7 (Blue) = 8.2 X 1000 = 8200 pF

Value (24 value symbols) - Upper case letters and Numerals					Multiplier
A - 1.0	H - 2.0	N - 2.7	V - 4.3	3 - 6.8	Orange = X 1.0
B - 1.1	I - 1.8	O - 3.0	W - 4.7	4 - 7.5	Black = X 10
C - 1.2	J - 2.0	R - 3.3	X - 5.1	7 - 8.2	Green = X 100
D - 1.3	K - 2.2	S - 3.6	Y - 5.6	9 - 9.1	Blue = X 1000
E - 1.5	L - 2.4	T - 3.9	Z - 6.2		Violet = X 10000
					Red = X 100000

< Table 3 >

2-3 Servicing jigs and special tools

2-3-1 Servicing features of the X-5 chassis

After replacing the cylinder ass'y, the remote control (Part number : **69099-633-252**) can be uesd to adjust the "X-point tracking center adjustment (tape path alignment)" and "Head S/W point" adjustment.
The remote control part numer "**633-252**" is printed on the inlay of remote control.

2-3-1 (a) When using the "**INPUT**" button of remote control ass'y ;

1. Head S/W point (6.5 ± 0.5H) adjustment

1) Insert a SP tape into the housing ass'y.
2) Set the unit to stop mode.
3) Press the "**INPUT**" button and "**3**" button simultaneously.
4) Press the "**PLAY**" button.
5) This will adjust the head S/W point adjustment automatically.
6) After the adjustment is completed, press "**POWER**" button to release.

2. Tracking center adjustment

1) Simultaneously press the "INPUT" button and "1" button in PB mode.
This will adjust the tracking center automatically.
2) Set the tracking preset using the "**TRK(Tracking, FINE)**" button of remote control.
3) After adjustment is completed, press the "**POWER**" button to release.

2-3-2 (b) When using the "**TEST**" button of remote control ass'y ;

1. Head S/W point (6.5 ± 0.5H) adjustment

1) Insert a SP tape into the housing ass'y.
2) Set the unit to stop mode.
3) Press the "**TEST**" button and "**SP/LP**" button simultaneously.
4) Press the "**PLAY**" button.
5) This will adjust the head S/W point adjustment automatically.
6) After adjustment is completed, press the "**POWER**" button to release.

2. Tracking center adjustment

1) Simultaneously press the "TEST" button and "5" button in PB mode.
This will adjust the tracking center automatically.
2) Set the tracking preset using the "**TRK (Tracking, FINE**) button of remote control.
3) After adjustment is completed, press the "**POWER**" button to release.

If the remote control is not available :
- See page 65 of mechanical manual for X- point tracking center adjustment.
- See page 5-3 of service manual for Head S/W point adjustment.

2-3-2 Servicing guide

1. For this VCR chassis, the program switch and the sensors (start/end/reel) are located on the main PCB, not on the deck ass'y.

2. As long as the deck ass'y is connected to the main PCB, all repairs are possible.
Important : In order to repair the main PCB without the deck ass'y connected, the X-5 chassis jig should be used.

3. To emulate the function of the sensors, connect a jumper or solder land (two point) at W751 on the function-timer PCB.

4. The X-5 chassis jig can be used for the following :

1) When repairing or confirming the operation of the deck ass'y.
2) When replacing or repairing the components located under the deck ass'y.
3) When repairing the function PCB.

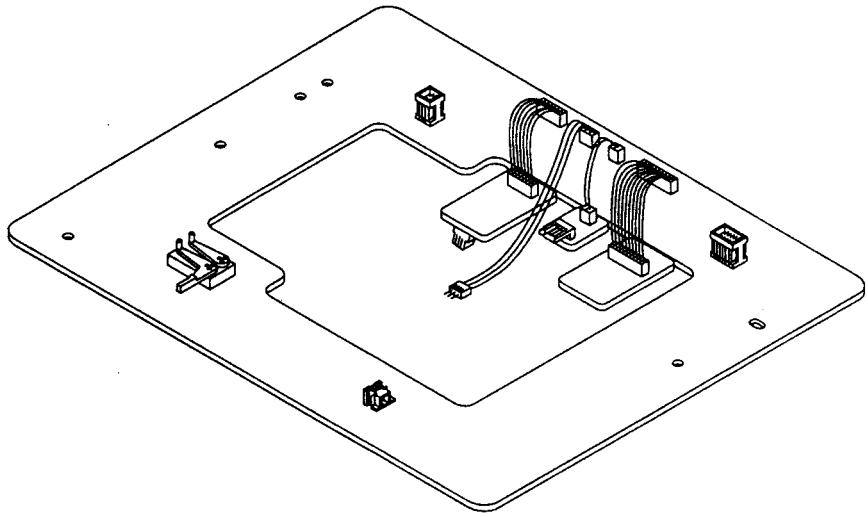
5. The X-5 chassis jig can not be used for the following :

1) Repairing defects in the video section.
2) Repairing defects in the audio section.
3) If the defect is related to tape speed.

Note :
1) Accurate repair may not be possible due to external noise between the deck ass'y and main PCB.
2) If tape control signal is not connected to the jig, VCR must be operated in SP mode.

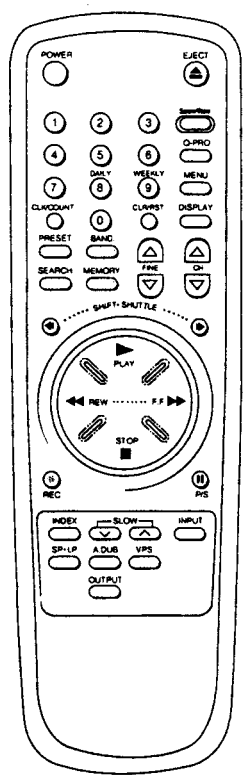
2-1-3 Servicing jig

Jig Item	Part No.	Use
X-5 Chassis Jig	68140-500-013	Connects the deck ass'y to the main PCB connecting cable.
Remote Control Ass'y	69099-633-252	X-point tracking center & Head S/W point adjustment.



(X-5 Chassis Jig)

(Optional)



(Remote Control Ass'y)

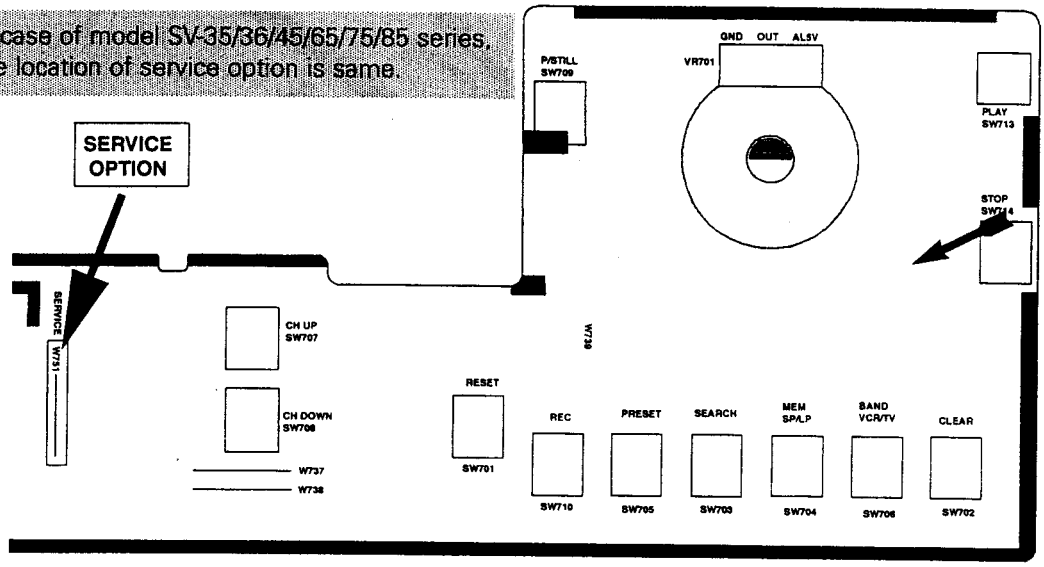
2-1-4 How to connect X-5 chassis jig

1. Unplug the power cord from AC outlet.

2. Remove the deck ass'y from main PCB (See Page 4-3 of service manual).

3. To emulate the function of the sensors, place a jumper or solder land (two point) at W751 on the function-timer PCB (see diagram below).

Note : In case of model SV-35/36/45/65/75/85 series, the location of service option is same.



Function-Timer (Component side)

Note : After completing repairs, SW701 on the function-timer PCB in order to reset.

4. Insert wafers of drum motor, capstan motor and loading motor on X-5 chassis jig into each connectors of deck ass'y and then secure with three screws.

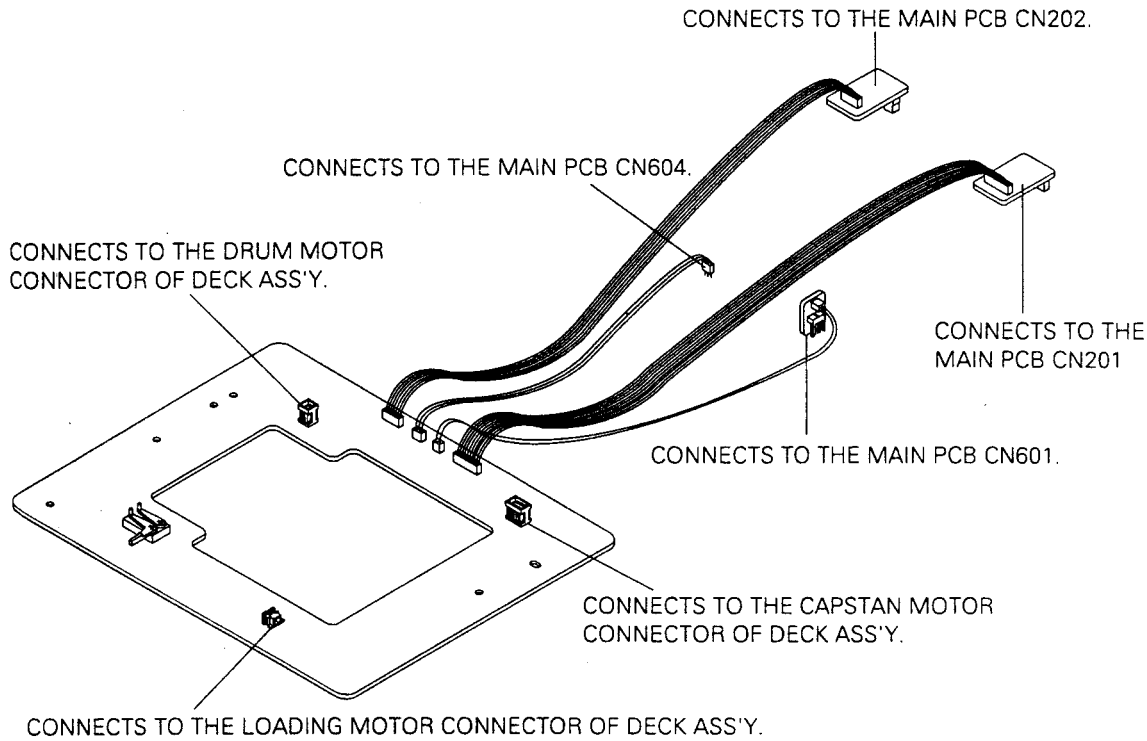
5. Solder the 3 leads of the jig cable to the "CN604" on the main PCB.

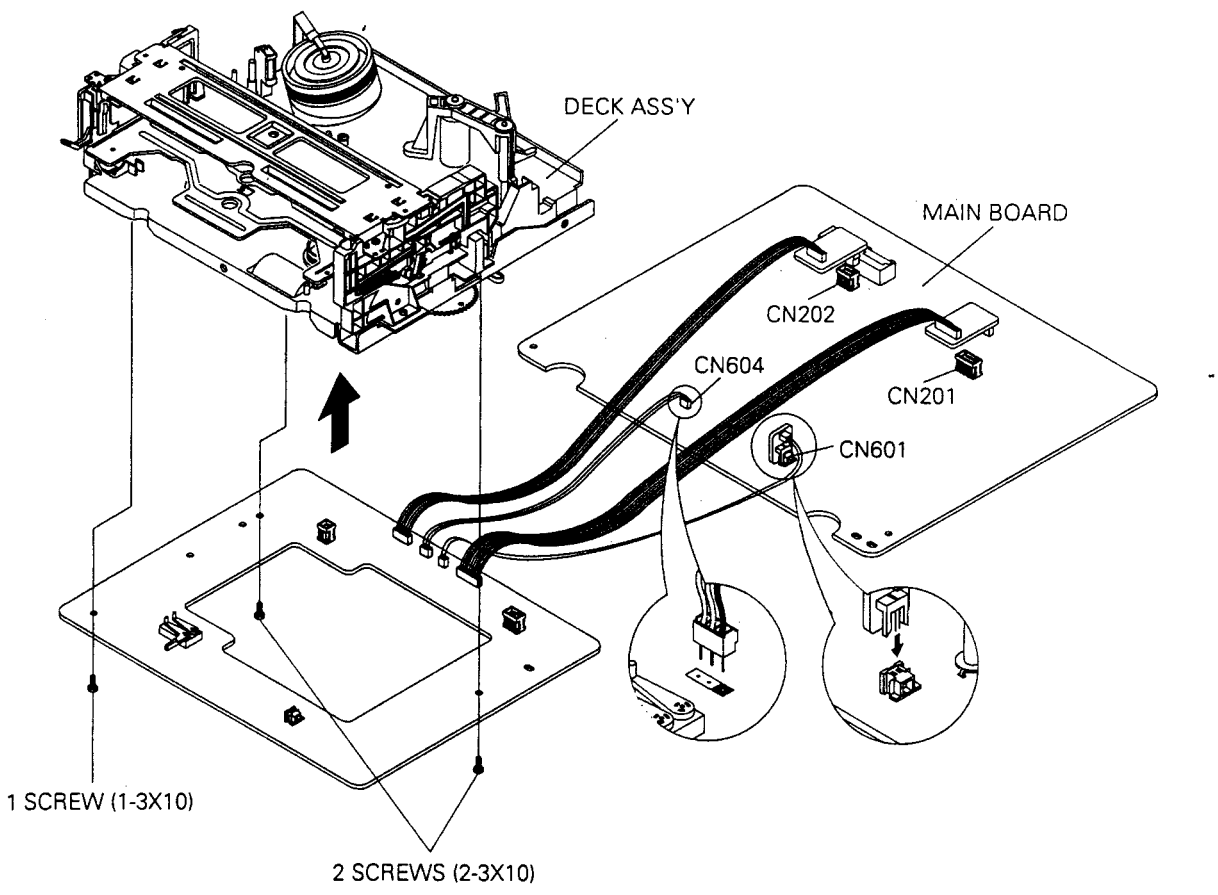
6. Apply power to the function PCB.

7. Insert a test tape into the housing ass'y.

8. Simultaneously touch the start and end sensor LEDs on the PCB, so that the tape loads automatically. After the tape is loaded, all of the function buttons on the function-timer PCB can be used.

9. If the test tape is ejected while the jig is in use, attempt to re-load the tape by simultaneously touching the start and end sensor LEDs. If the tape still does not road, reset the function-timer PCB by pressing SW701.


CONNECTS TO THE MAIN PCB CN202.
CONNECTS TO THE MAIN PCB CN604.
CONNECTS TO THE DRUM MOTOR CONNECTOR OF DECK ASS'Y.
CONNECTS TO THE MAIN PCB CN201
CONNECTS TO THE MAIN PCB CN601.
CONNECTS TO THE CAPSTAN MOTOR CONNECTOR OF DECK ASS'Y.
CONNECTS TO THE LOADING MOTOR CONNECTOR OF DECK ASS'Y.


DECK ASS'Y
MAIN BOARD
CN202
CN604
CN201
CN601
1 SCREW (1-3X10)
2 SCREWS (2-3X10)

3. Product Specifications and Comparison Charts

3-1 Product Specifications

Design and specifications are subject to change without notice.

Operation	Description
Format	VHS PAL standard
Video recording system	Video : 2 Rotary heads Audio/control : 1 Stationary head Erase : 1 Full track erase head
Receiving channel	VHF Low : E2~E4, X, Y, Z, Z+1, Z+2, S1~S10 VHF High : E5~E12, S1~S41, UHF : 21 ~ 69
RF Out	CCIR : UHF Channel 36 preset (UHF Channel 30 ~ 39 adjustable)
Television system	Standard B/G
Colour system	PAL/MESECAM
Luminance	FM Azimuth recording
Colour	Down-converted subcarrier phase shifted direct recording
Tape speed	SP : 23.39 mm/sec
Record/Playback time	SP : 3 hours (E-180 tape)
FF/REW time	100~190 sec in REW; 200 sec in FF with E-180
Video	
Input Output Signal-to-noise ratio Horizontal resolution	0.5 to 2.0 Vp-p : 75 ohm unbalanced 1.0 ± 0.2Vp-p : 75 ohm unbalanced Better than 43 dB(SP) More than 240 lines (SP)
Audio	
Input Output Wow flutter (WTD) Signal-to-noise ratio Frequency response	-8 dBm, 47 Kilohm unbalanced -4 ± 3 dBm, 1.5 Kilohm unbalanced 0.4% Max (SP) 43 dB min (IHF A Filter) 100Hz ~ 8KHz (SP)
Power requirement	230V (AC 50/60Hz)
Power consumption	Approx 18watts
Operating temperature	41°F ~ 104°F (5°C ~ 40°C)
Operating humidity	10% ~ 75%
Weight and dimensions	4.4 Kg 398(W) X 90.5(H) X 310(D) mm

3-2 Comparison Charts

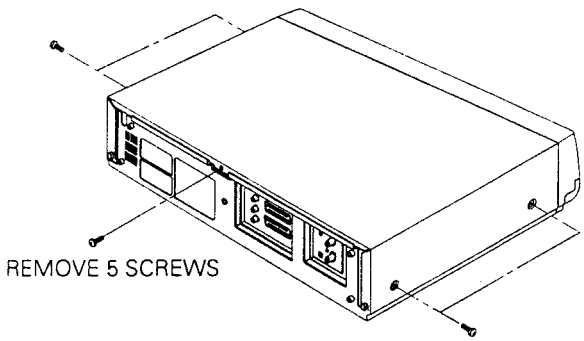
Function / Buyer	VPS	PDC	AUX (Front AV)	ATS	Show view	Hyper Band	VCR/ TV	Scart Jack
SV-35XK/AMF	X	X	X	X	X	O	X	1 Scart
SV-35XK/EDI	X	X	X	X	X	O	X	1 Scart
SV-35XK/NSI	X	X	X	X	X	O	X	1 Scart
SV-35XK/SEC	X	X	X	X	X	O	X	1 Scart
SV-35XK/SEG	O	X	X	O	X	O	X	1 Scart
SV-35XK/SEI	X	X	X	X	X	O	X	1 Scart
SV-35XK/SEP	X	X	X	X	X	O	X	1 Scart
SV-36XK/AMF	X	X	X	X	O	O	X	1 Scart
SV-36XK/ATR	O	X	X	O	O	O	X	1 Scart
SV-36XK/SEC	X	X	X	X	O	O	X	1 Scart
SV-36XK/SEG	O	X	X	O	O	O	X	1 Scart
SV-36XK/SEI	X	X	X	X	O	O	X	1 Scart
SV-45XK/AMF	X	O	O	O	O	O	O	2 Scart
SV-45XK/ATR	O	X	O	O	O	O	O	2 Scart
SV-45XK/EDI	X	O	O	O	O	O	O	2 Scart
SV-45XK/NSI	X	O	O	O	O	O	O	2 Scart
SV-45XK/SEC	X	X	O	O	O	O	O	2 Scart
SV-45XK/SEG	O	X	O	O	O	O	O	2 Scart
SV-45XK/SEI	X	X	O	X	O	O	O	2 Scart
SV-45XK/SEP	X	X	O	X	O	O	O	2 Scart

4. Disassembly and Reassembly

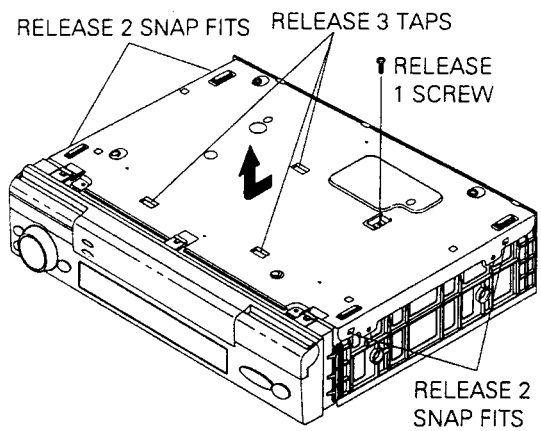
4-1 Cabinet and PCB

Disassemble in the order shown.
Reassemble in reverse order.

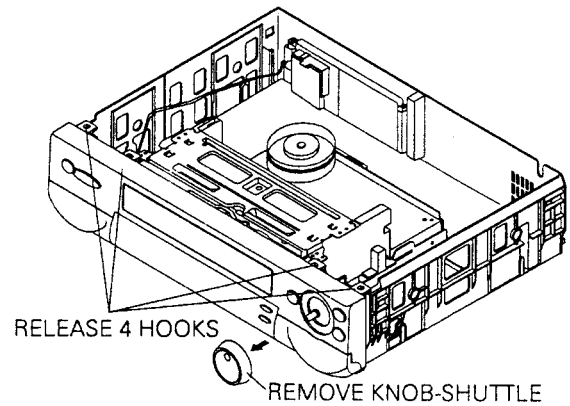
4-1-1 Top cabinet removal



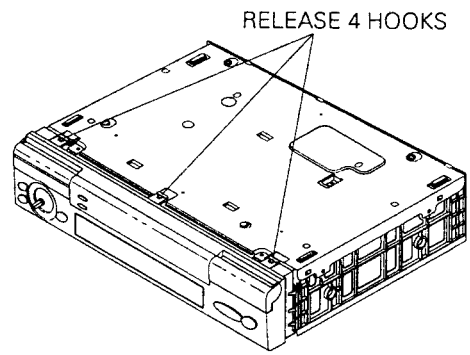
4-1-2 Bottom cover removal



4-1-3 Front panel removal

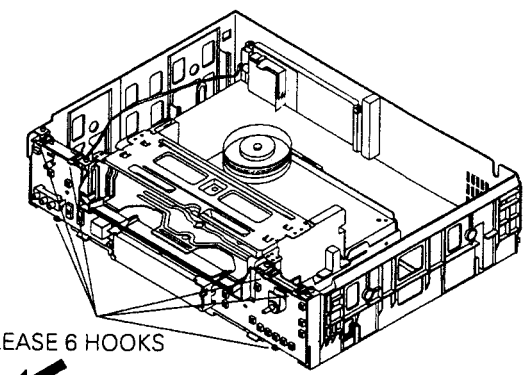


(Top view)



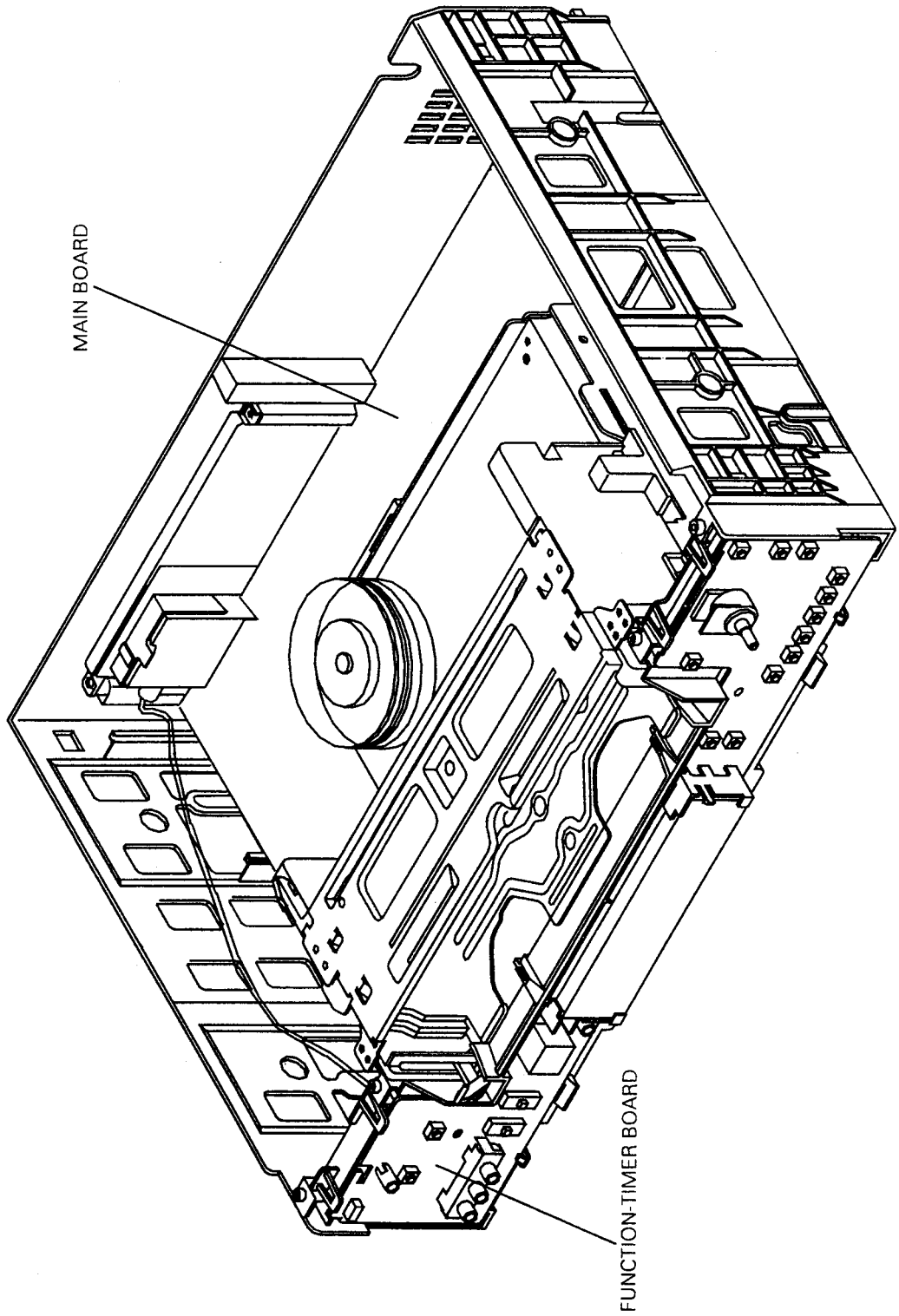
(Bottom view)

4-1-4 Function-Timer PCB removal



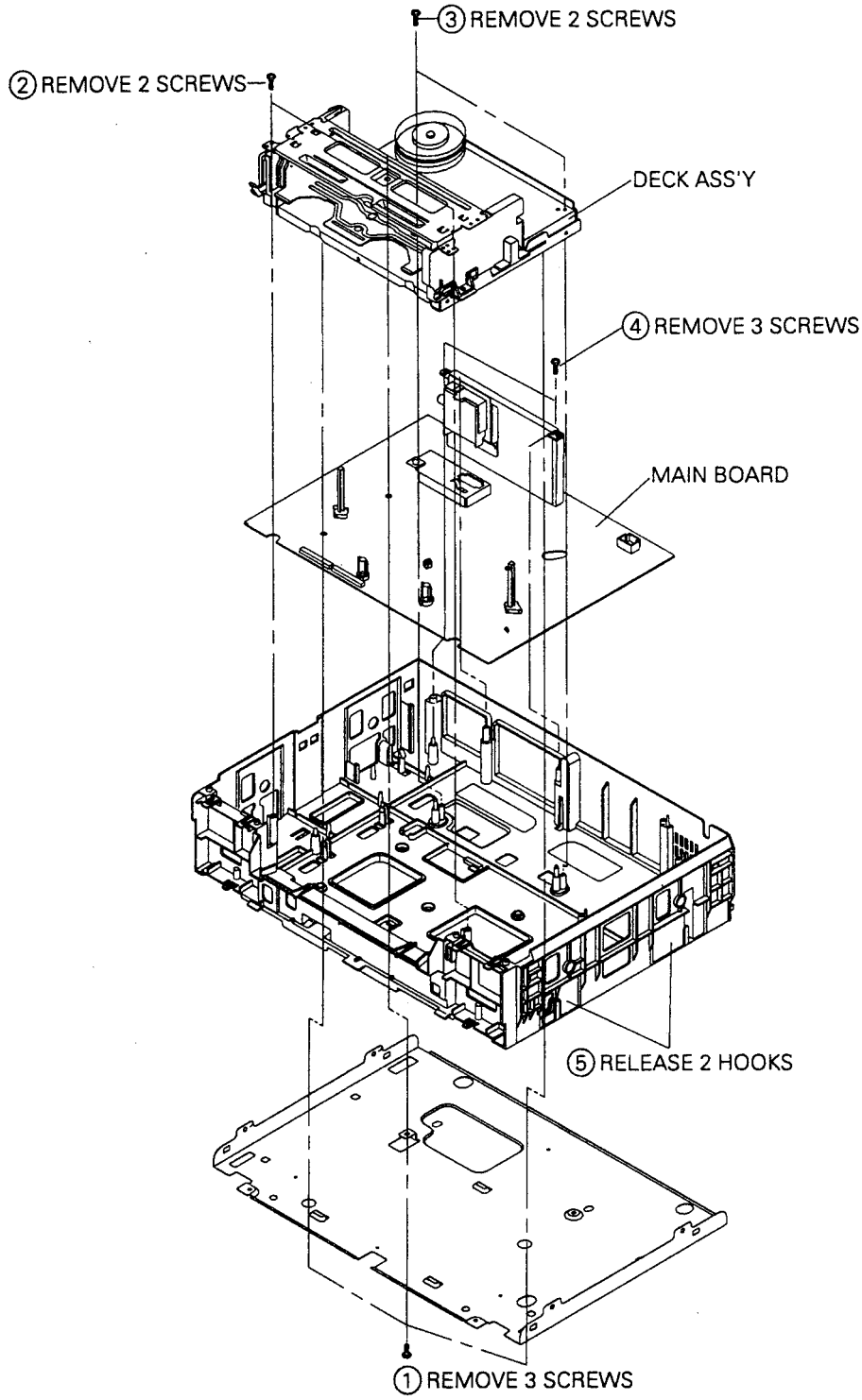
Note : Take extreme care not to damage the PCB when removing it.

4-2 Circuit Board Locations



4-3 Chassis Removal

Note : 1. When removing chassis, take extreme care not to damage the main PCB front.
2. When reinstalling the deck on the main PCB, take extreme care not to damage the sensor.



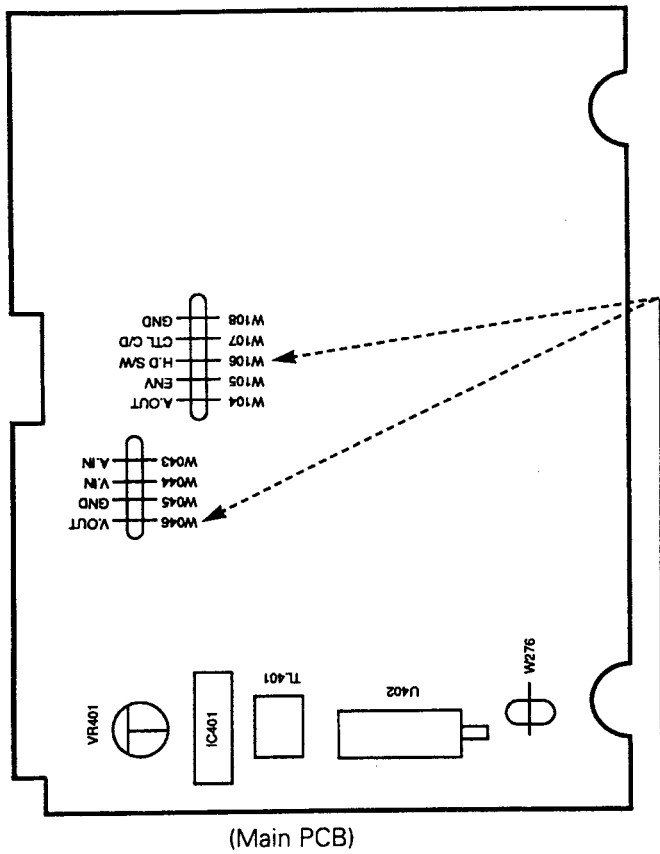
Memo

5. Alignment and Adjustment

5-1 Servo and Video Adjustment

Step	Adjustment Item
1. Mode and input signal/ alignment tape 2. Test point and ADJ. part 3. Result and Remarks	

ADJ. point
Test point



(Main PCB)

5-1-1 Head switching point

1. If the remote control (Part no. : **69099-633-252**) is available. (See page 2-9)
2. If the remote control is not available.

1) Remove the R234(chip). (See Fig. 2)
2) Install VR(100K) to the solder land of W329 and TP201. (See Fig. 2)
3) Play back the lion pattern tape (7KHz).
4) Connect CH1 of oscilloscope to W106 (Head S/W) and CH2 to W046 (Video out).
5) Adjust VR(100K) so that the switching point is positioned at 6.5H ± 0.5H. (See Fig. 1)
6) When the adjustment is complete, remove the VR(100K) and measure its value using a multimeter. Install a fixed resistor which has the measured value snd install it in place of R234.

Note :
1. If a chip resistor is not available, install an axial resistor in place of W329 and TP201. (See Fig. 2)
2. If measured value is 1.7K installing a 1.5K or 2K replacement is OK.

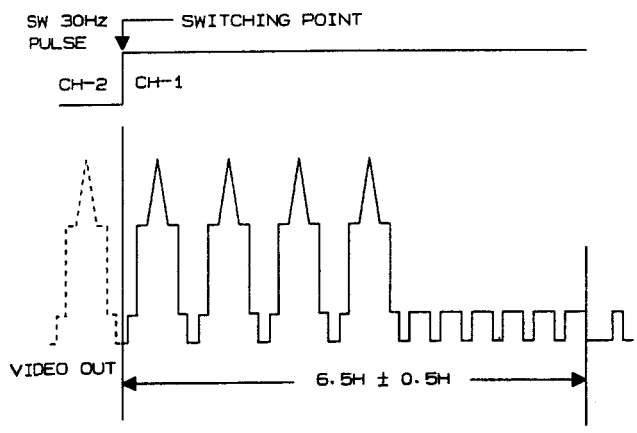


Fig. 1 Head switching point

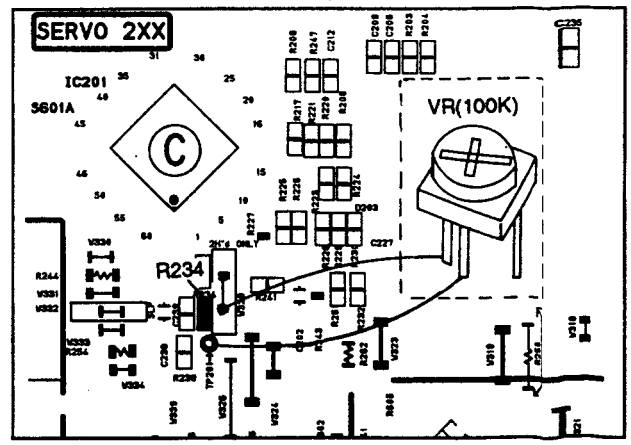
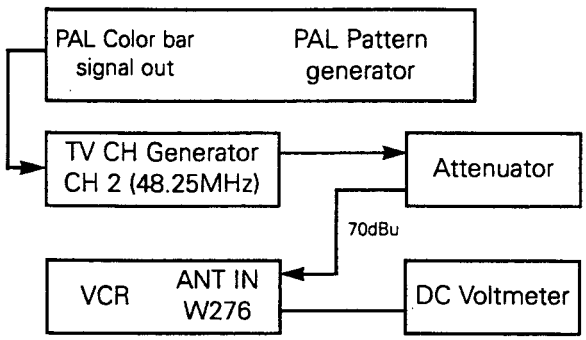


Fig. 2

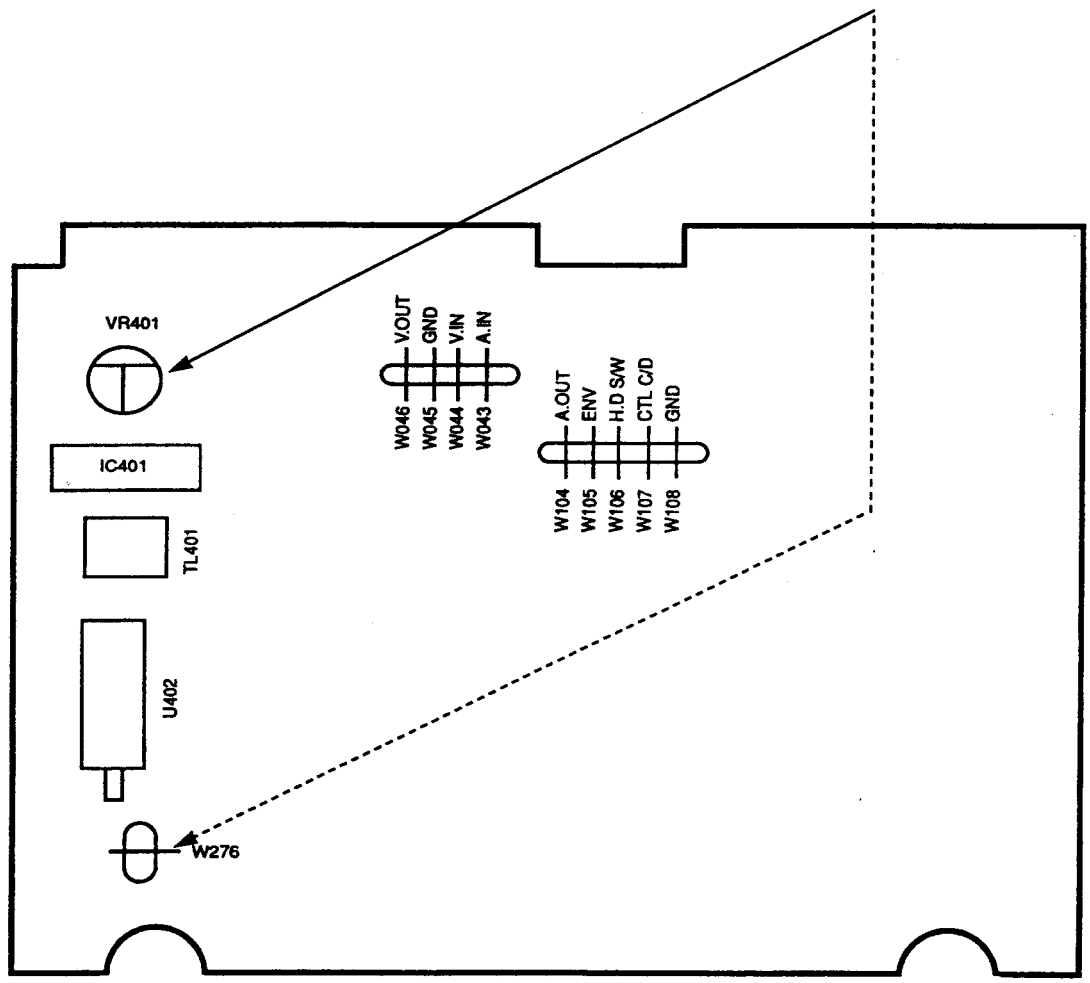
Step	Adjustment Item
1. Mode and input signal/ alignment tape 2. Test point and ADJ. part 3. Result and Remarks	ADJ. part Test point

*** Composition for RF AGC adjustment**



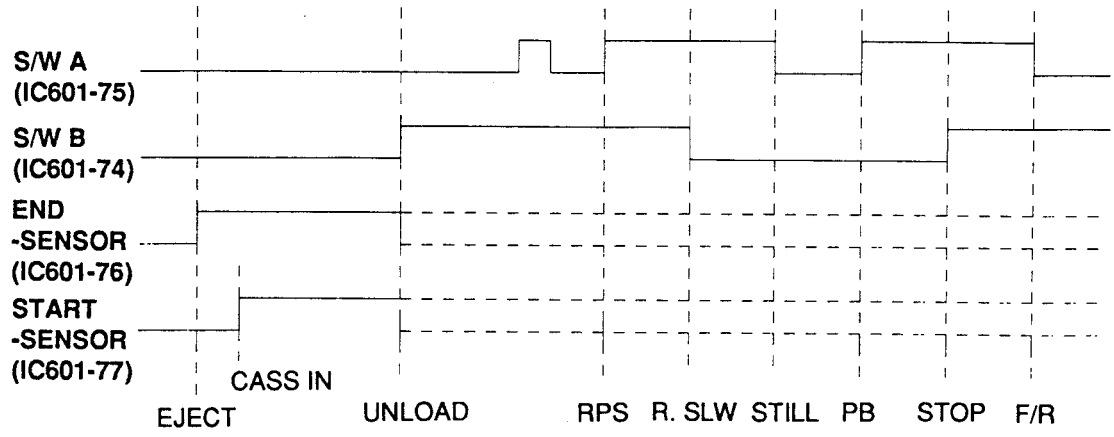
5-1-2 RF AGC

1. "E-E" (stop mode), RF signal.
2. W276 and VR401.
3. Apply PAL color bar signal to the video input terminal of the TV channel generator and set channel selector to CH 2 (48.25MHz).
4. Adjust the point signal level so that the output of attenuator is 70dBu.
5. Apply the output of attenuator to the ANT IN terminal of VCR.
6. Set the channel of VCR to CH 2.
7. Connect DC voltmeter to W276.
8. Adjust VR401 for DC 4.2 ± 0.1V.



(Main PCB)

5-2 Timing Chart of Program S/W



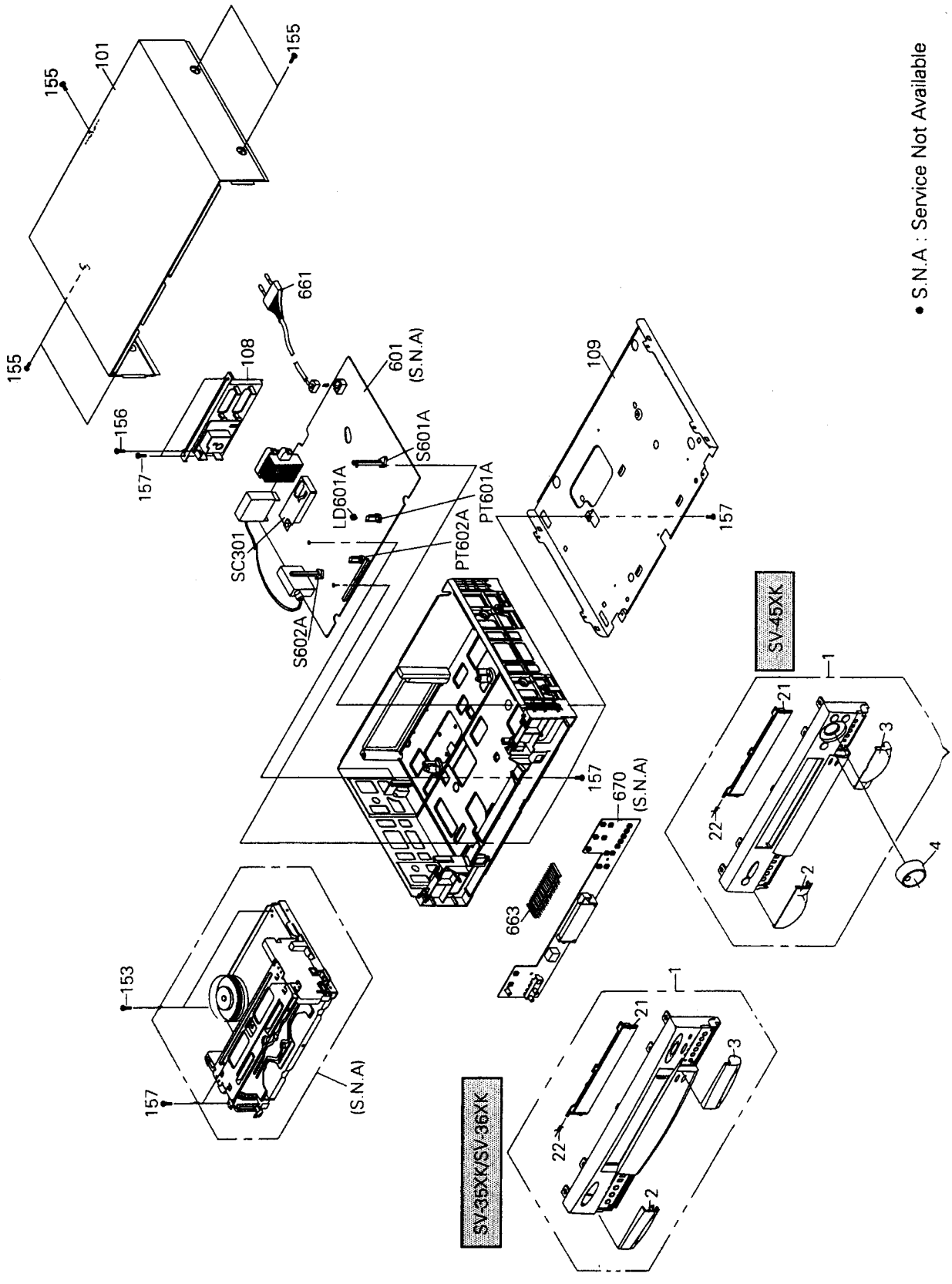
Position	Program S/W (SW601)				Action Mode
	E/S	E/S	E/S	E/S	
Eject	L	L	L	L	Eject
Cassette IN	H	L H	L	L	Cassette IN
Unload	-	-	L	L H	Unload
R. PS	-	-	L H	H	R. PS, Z-R. PS
R. Slow	-	-	H	H L	Pinch Roller off Position
Still	-	-	H L	L	Still, Slow, F-ADV
Play	-	-	L H	L	PB, T-Stop, REC, Pause, F. PS, Z-FPS
Stop	-	-	H	L H	Stop, Power off
FF/REW	-	-	H L	H	FF, REW

Memo

6. Exploded View and Parts List

		Page
6-1	Cabinet Assembly	6-2
6-2	Mechanical Parts (Top Side)	6-4
6-3	Mechanical Parts (Bottom Side)	6-8
6-4	Housing Assembly	6-10

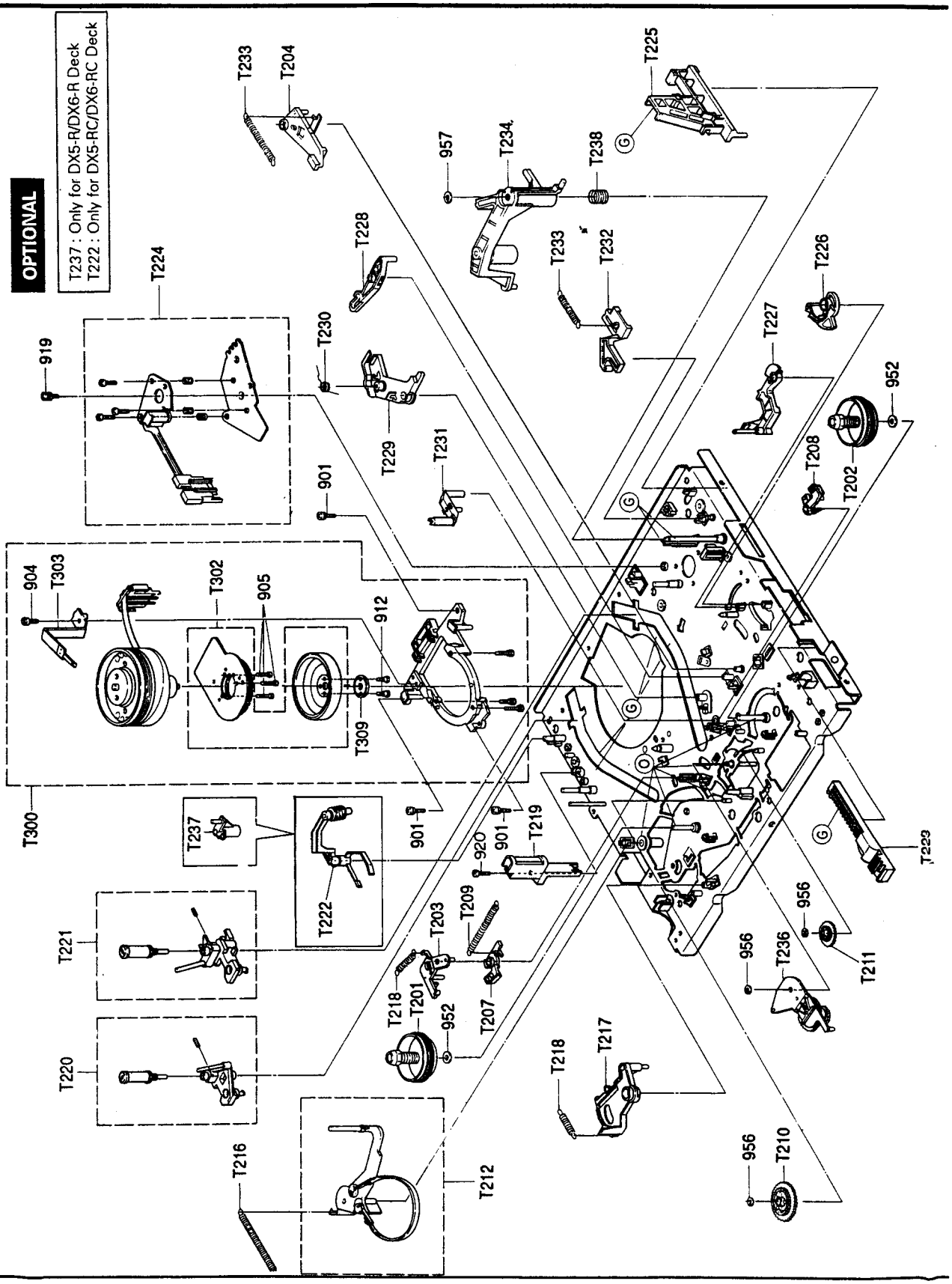
6-1 Cabinet Assembly



Loc. No	New Part No	Description and Specification	Remark	Old Part No
-	AC96-10013H	ASSY-DECK (DX5-R)	(S.N.A)	-
1	AC98-11201T	ASSY P/FRONT;SV-45XK/AMF		-
2	64043-0271-00	DOOR-FRONT (L);SV-45XK/AMF		-
3	AC64-50816D	DOOR-FRONT (R);SV-45XK/AMF		-
4	AC64-10080A	KNOB-SHUTTLE;ABS 94,HB,GRY,-		64083-0723-00
21	AC64-50833B	DOOR-CASSETTE;SV-45XK/AMF		-
22	62724-0090-00	SPRING;SUS304 (GE/RCA)		-
101	V2002-0027-01	CABINET-TOP;PVC+SECC T0.75 M/GRY(47041) SV-80XK		-
108	66009-0081-00	CONNECTOR BOARD(ASSY);HIPS94HB(NON-BR) SV-80X T2		-
109	V3312-0149-00	COVER-BOTTOM;SPG T0.5 NTR SV-80X		-
153	67158-240-121	SCREW BH;2-4*12 FE FZY		-
155	67158-240-163	SCREW-TAP BH;2-4X16 FE FZB		-
156	67158-230-081	SCREW-TAP BH;2-3X8 FE FZY		-
157	AC60-10063A	SCREW-TAPTITE;BH,+,-,M3,L12,ZPC3,SWRCH18A		60504-0040-00
158	67158-230-120	SCREW-TAP TITE BH;3X10 FE FZY		-
601	Do not order	ASSY-MAIN	(S.N.A)	-
661	AC39-10020A	POWER CORD;KKP-419J,H03VVH2-F,VDE/KEMA-KE		A6006-0272
663	A6010-1364	CONNECTOR-WAFER;35329-4010 WHT MOLEX		-
670	Do not order	ASSY-F/TIMER	(S.N.A)	-
LD601A	63323-0313-00	HOLDER-LED;POM		-
PT601A	63323-0312-00	HOLDER-PHOTO;POM		-
PT602A	63323-0312-00	HOLDER-PHOTO;POM		-
S601A	63322-0311-00	HOLDER-TR;POM		-
S602A	63322-0311-00	HOLDER-TR;POM		-
SC301	62073-0258-00	SHIELD-CASE P/AMP(ASSY);3516ET T0.3 SIL SV-80Z		-

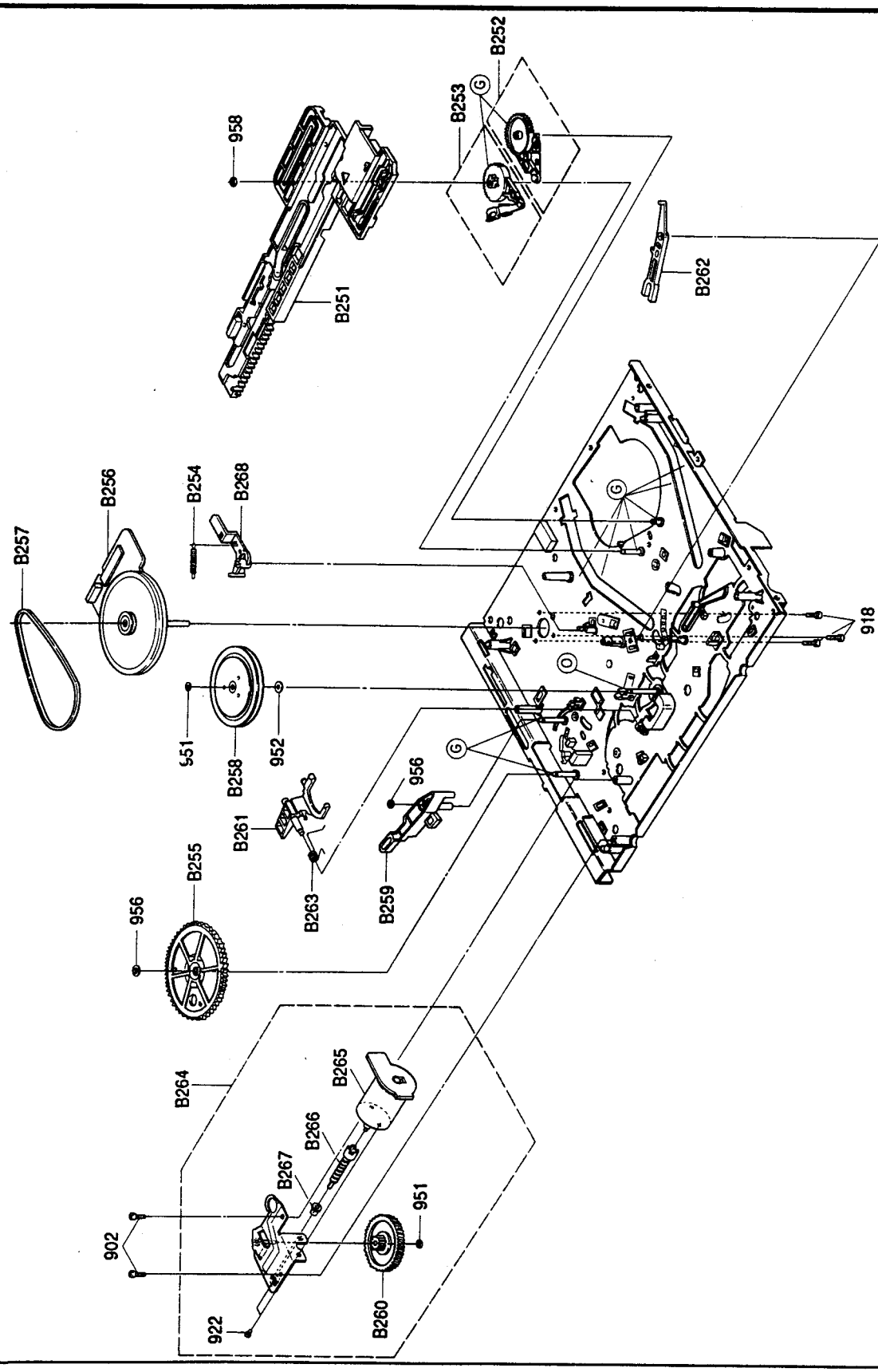
◆ Location number 1, 2, 3 and 21 are only for model SV-45XK/AMF.
Please, refer to the separate information for the other models combind.

6-2 Mechanical Parts (Top Side)



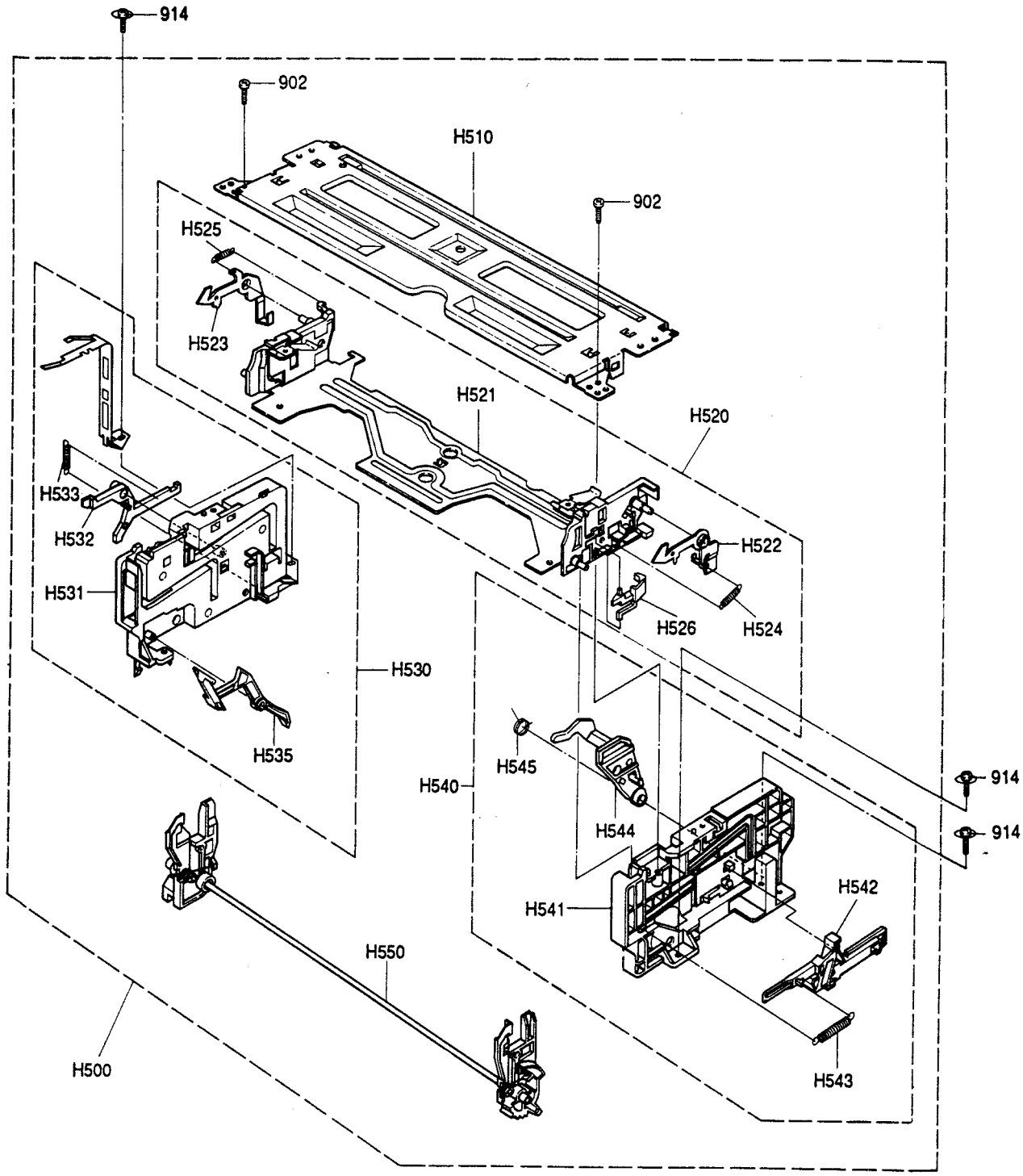
Loc. No	New Part No	Description and Specification	Remark	Old Part No
901	AC60-10012A	SCREW-MACHINE;BH,+,M3,L8,-,FE,-,-,-		60509-0064-00
904	67108-330-061	SCREW-PH;M3X6 TAP TITE		-
905	60509-0103-00	SCREW-MACHINE;PH FP M2.6 X10 SWRCH10A GDL		-
912	67094-604-710	SCREW-DAMPER;M2.0X7.0 SWCM 10(MFZN2-C)		-
919	AC60-10004A	SCREW-MACHINE;BH,+,M2.6,L7,ZPC,SWRCH18A,-,-,		60504-0102-00
920	AC60-10007A	SCREW-MACHINE;BH,+,M3,L2.6,-,SWRCH18A,-,-,-		60504-0121-00
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER,		67304-103-410
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,-		60534-0034-00
957	AC60-30008A	WASHER-SLIT;-,ID3.5,OD9,T0.5,SPC1,-,-		60504-0035-00
T201	AC66-10023A	REEL-DISK L ASSY;POM,-,PACKAGE,X-5,-		61574-0023-00
T202	AC66-10022A	REEL-DISK R (ASSY);POM,-,PACKAGE,X-5,-		61574-0021-00
T203	AC66-30112A	BRAKE SUB L;PBT 3300,T2,L27,NTR,-,-		62613-0013-00
T204	AC66-30148A	BRAKE SUB R;-,-,-,-,X5,-		62614-0011-00
T207	AC66-30147A	BRAKE MAIN L;-,-,-,-,X5,-		62614-0009-00
T208	AC66-30146A	BRAKE MAIN R;-,-,-,-,X5,-		62614-0007-00
T209	AC61-60112A	SPRING- BRAKE MAIN;ES,SUS304WPB,PI0.32,D3.16,L19.		62674-0208-00
T210	AC66-20073A	GEAR RELAY S;-,-,-,-,-,X5,-		61474-0099-00
T211	AC66-20037A	GEAR- RELAY T;PEBAX6333,M0.5,Z39,GEAR-SPUR,D		61474-0095-00
T212	AC66-30073A	ARM-TENSION;-,-,-,CKD,DX5-R,-		61543-0071-00
T216	AC61-60119A	SPRING TENSION;ES,SWPB,PI0.4,D3,L33(OD3.8),-,		62724-0215-00
T217	AC66-30015B	LEVER-REC S/W;PBT 3300,T 1.5,-,-,X-5,-		61533-0098-00
T218	62724-0217-00	SPRING-REC S/W;ES SUS304 PI0.23 D3.5 L14.8		-
T219	AC33-10003P	HEAD- MAGNET F/E;MH131S,-,-,-,L51.05XW7.4XH12.3		66603-0005-00
T220	61643-0027-00	SLIDER-G/R ASSY(S);X-5		-
T221	61643-0029-00	SLIDER-G/R ASSY(T);X-5		-
T222	AC33-10002E	HEAD-CLEANER;-,-,-,-,-,X-5	(OPTIONAL)	67083-0075-00
T223	AC66-20065A	RACK-HOUSING;L74.29,POM M90-44,BLK,M1,3.14,		61642-0022-00
T224	AC33-10001U	HEAD-ACE ALL ASSY;-,-,-,-,-,X-5		66603-0006-00
T225	AC66-80005A	SLIDER-PINCH;POM(M90-44),T10.5,L54.35,NAT,D		61642-0024-00
T226	AC66-30014A	LEVER-REVIEW;ZYTEL(70G-43L),T5,-,PCD25.6,-,		61533-0096-00
T227	AC66-30099A	ARM REVIEW CKD;-,-,-,-,DX5-RV,-		61544-0073-00
T228	AC66-30013A	LEVER- CAM;PBT 6300T,-,L45,-,W9,-		61533-0094-00
T229	AC66-30003A	LEVER PINCH COUP;PBT 3300,T7.5,L45.25,-,-,-		61532-0093-00
T230	AC61-60116A	SPRING- PINCH COMP;TS,SWPB,PI1.0,D6,L38(OD8),-,-		62724-0212-00
T231	62713-0054-00	PRISM-LED;PMMA D5 IF-850		-
T232	61643-0025-00	SLIDER-PUSH;LUPOX 2150 T2 NTR		-
T233	62724-0216-00	SPRING-SLIDE PUSH;ES SUS304WPB PI0.55 D3.55 L24.75		-
T233	62724-0216-00	SPRING-SLIDE PUSH;ES SUS304WPB PI0.55 D3.55 L24.75		-
T234	AC59-90001B	UNIT-PINCH ROLLER;X-5,-,YAMAUCHI		67172-0174-00
T236	AC66-10010A	IDLER-ASSY;PACKAGE,-,X-5,-		61603-0006-00
T237	AC61-40054A	STOPPER-TAPE;POM M90-44,OD7,T1.5,NTR,-,-	(OPTIONAL)	63383-0031-00
T238	AC61-60132A	SPRING ARM PINCH;CS,SUS304WPB,PI0.35,D7.1,L9.5,		62724-0239-00
T300	AC96-10010V	ASSY-CYLINDER		V9020-124-042
T302	66823-0061-00	MOTOR-CYLINDER;E20XL03		-
T303	67084-0076-00	HEAD-BRUSH(ASSY);SECC20/20+CARBON		-
T309	63344-0002-00	RETAINER-RUBBER(ASSY);SECC+SILICON		-

6-3 Mechanical Parts (Bottom Side)

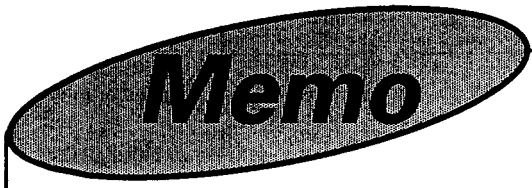


Loc. No	New Part No	Description and Specification	Remark	Old Part No
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY		60509-0063-00
918	AC60-10006A	SCREW-MACHINE;BH,+190M3,-,L8,ZPC,SWRCH18A,-,		60504-0120-00
922	67008-130-171	SCREW PH;+M3X3 FE FZY		-
951	AC60-30025A	WASHER-SLIT;-,ID2.5,OD5.0,T0.5,POLY SLIDE,		67334-600-310
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER,		67304-103-410
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,-		60534-0034-00
958	AC60-30028A	WASHER-SLIT;-,D2.5,D9.0,T0.5,NUMIRROR,-,-		67334-601-830
B251	AC66-80001A	SILDER- MAIN;PBT2002K,T12.4,L206.2,NAT,DX-5		61641-0023-01
B252	AC66-20019A	GEAR-LOADING L ASSY;-,-,-,PACKAGE,-,X-5,-		61473-0107-00
B253	AC66-20069A	GEAR LOADING R;-,-,-,-,-,X5,-		61473-0105-00
B254	AC61-60115A	SPRING-BRAKE CAPSTAN;ES,SUS304WPB,PI0.4,D22,L16.1(		62724-0211-00
B255	AC66-20004A	GEAR-MASTER;POM (M90-44),M 1,Z 60,SP,-,X-5		61472-0104-01
B256	66823-0059-00	MOTOR-D.D CAPSTAN;F2QTB04		-
B256	66823-0075-00	MOTOR-D/D CAPSTAN;DMVCMC06A		-
B257	61494-0009-00	BELT-CAPSTAN;5OM-70 FR W2 T2 L88.6		-
B258	69000-292-005	ASSY CLUTCH;DX5-R		-
B259	61533-0095-00	LEVER-SLIDER PINCH;PBT T4 NAT		-
B260	AC66-20016A	GEAR- WORM WHEEL;POM SW-01,M0.55/M1,Z57/Z10,GEA		61473-0102-00
B261	AC66-30011A	LEVER- SHIFT;PBT2002K,T10.9,L35,-,-,-		61533-0090-00
B262	AC66-30012A	LEVER- IDELR CHANGE;PBT330,T33,L50,-,W6.0,-		61533-0091-00
B263	AC61-60111A	SPRING-LEVER SHIFT;TS,SWPB,PI0.7,D5.5,L13.8(OD6.9		62724-0207-00
B264	AC59-90001A	UNIT-LOADING ASSY;X-5,-,-		67172-0173-00
B265	66823-0060-00	MOTOR-LOADING ASSY;POM+RF370C X-5		-
B266	AC66-20039A	GEAR- WORM LO;PBT 2002K,-,-,-,D4.5,3,-		61474-0103-00
B267	AC61-20224A	HOLDER SHAFT;POM M90-44,T1.25,NTR,PI5XH5.5,		63324-0299-00
B268	AC66-30149A	BRAKE CAPSTAN;-,-,-,-,X5,-		62614-0014-00

6-4 Housing Assembly



Loc. No	New Part No	Description and Specification	Remark	Old Part No
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY		60509-0063-00
914	AC60-10067A	SCREW-TAPTITE;PWH,+,-,M3,L8,MFZN2-C,SWCH1018		60504-0128-00
H500	62052-0014-00	HOUSING-ASSY;X5FL2326A X-5		-
H510	AC61-10006A	CHASSIS- UPPER;SECC 20/20,-,T1.0,BLK,-,X5,-		62202-0103-00
H520	63322-0317-00	HOLDER-CASSETTE(ASSY);SECC X5FL0810A X-5		-
H521	AC61-20083A	HOLDER-CASSETTE;SECC 20/20,T1.2,-,-,HRB50,-		63321-0314-00
H522	AC66-30018A	LEVER-LOCK R;SECC 20/20,T1.2,L44,W32,-,-		61533-0102-00
H523	AC66-30020A	LEVER LOCK L;SECC 20/20,T1.2,L44,W32,-,-		61533-0104-00
H524	AC61-60121A	SPRING-LEVER LOCK;ES,SUS304 WPB,PI0.2,D2.6,L9.9(		62724-0220-00
H525	AC61-60121A	SPRING-LEVER LOCK;ES,SUS304 WPB,PI0.2,D2.6,L9.9(		62724-0220-00
H526	AC66-30019A	LEVER-KEY CASSETTE;LUCEL N109-LD,T2.5,L20,W15.2,-		61533-0103-00
H530	62203-0105-00	CHASSIS-SIDE "L"(ASSY);ABS X5FL0505A X-5		-
H531	AC61-10004A	CHASSIS- SIDE L;ABS HF-380,-,T10,BLK,-,X5,BLK		62201-0102-00
H532	AC66-30004A	LEVER- LIGHT SHUTTER;LUCEL N109-LD,T2.5,L61.7,-,-,		61532-0101-00
H533	AC61-60142A	SPRING- LIGHT;ES,SUS304WPB,PI0.23,L11.4(OD3.		62724-0219-00
H535	AC66-30017A	LEVER- DOOR;LUCELN109-LD,T3.5,L74.3,W21.1,		61533-0100-00
H540	62203-0104-00	CHASSIS-SIDE "R"(ASSY);ABS X5FL0505A X-5		62203-0104-00
H541	AC61-10003A	CHASSIS- SIDE R;ABS HF-380,-,T10,BLK,-,X5,BLK		62201-0101-00
H542	AC66-80008A	SLIDER DAMPER;LUCEL N109-LD,T3.5,L87,-,-,-		61642-0032-00
H543	AC61-60120A	SPRING-SLIDER;ES,SUS 304WPB,PI0.4,D3.8,L25(O		62724-0218-00
H544	AC66-30016A	LEVER- LID OPENER;LUCEL N109-LD,T4.0,L34.7,W16.6		61533-0099-00
H545	AC61-60123A	SPRING-LID OPENER;TS,SWPB,PI0.55,D8.9,L15(OD10),		62724-0222-00
H550	61403-0073-00	SHAFT-ARM(ASSY);SUM24L X5FL0405A X-5		-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7. Electrical Parts List

Note : According to the change of Part-No system, old and new parts are listed in this service manual together.
When ordering a service part, be sure to use the only new part.

Loc. No	New Part No	Description and Specification	Old Part No
601	Do not order	ASSY-MAIN	(S.N.A)
		S.M.P.S Parts	
⚠ C01	2305-000605	C-FILM,MPEF;100NF,20%,275V,18X12X6X15,-,	B1102-0266
⚠ C02	2305-000605	C-FILM,MPEF;100NF,20%,275V,18X12X6X15,-,	B1102-0266
⚠ C05	2201-000812	C-CERAMIC,DISC;2.2NF,20%,400V,Y5P,11X7.5MM,7.	A1100-0999
⚠ C06	2201-000828	C-CERAMIC,DISC;3.3NF,20%,400V,Y5P,16X10MM,10M	A1100-0997
C10	2401-001957	C-AL;47.0UF,20%,400V,GP,18*25,7.5MM	A1104-0726
C101	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C11	2301-000140	C-FILM,PEF;10NF,10%,630V,16.5X9.5X5.7X,12	A1102-0219
C12	61419-001-006	C-CERAMIC;CKB3A 101K 06BS 1KV	
C13	B1102-0260	C-FILM;CQ 922 M 50V T 102-J ECQB1H102JF3	
C14	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C15	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)	
C16	2301-000289	C-FILM,PEF;5.6NF,5%,50V,6.5X5.5X3.0X5,5MM	B1102-0259
C17	2401-001939	C-AL;22UF,20%,50V,GP,6.3X11MM,2.5MM	61637-208-220
C18	2301-000415	C-FILM,PEF;22NF,5%,50V,6.5X10.5X4MM,5MM,T	61507-121-511
C30	2401-000385	C-AL;10UF,20%,100V,GP,6.3*11,2.5MM,	61637-511-100
C31	2401-001134	C-AL;330UF,20%,35V,WT,10X16,5MM,TP	A1104-0378
C32	2401-001125	C-AL;330UF,20%,25V,WT,10X12.5,5MM,T	A1104-0373
C33	2401-001125	C-AL;330UF,20%,25V,WT,10X12.5,5MM,T	A1104-0373
C34	2401-000128	C-AL;1000UF,20%,16V,GP,10X16,7.5MM,	A1104-0485
C35	2401-001893	C-AL;100UF,20%,16V,-,8X9MM,2.5MM,BK	61617-404-101
C36	2401-001572	C-AL;47UF,20%,50V,GP,6.3*11,2.5MM,	61637-508-470
C37	2401-001893	C-AL;100UF,20%,16V,-,8X9MM,2.5MM,BK	61617-404-101
C38	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C39	2401-001952	C-AL;4.7UF,20%,50V,-,4X7MM,1.5MM,BK	61617-408-479
C40	2401-001374	C-AL;470UF,20%,16V,WT,10X12.5,2.5MM	A1104-0480
⚠ CN01	A6010-0459	CONNECTOR-WAFER;YW396-02V WHT	
⚠ D01	0402-000388	DIODE-RECTIFIER;ERA15-06,600V,1A,AXIAL	B4104-0094
⚠ D02	0402-000388	DIODE-RECTIFIER;ERA15-06,600V,1A,AXIAL	B4104-0094
⚠ D03	0402-000388	DIODE-RECTIFIER;ERA15-06,600V,1A,AXIAL	B4104-0094
⚠ D04	0402-000388	DIODE-RECTIFIER;ERA15-06,600V,1A,AXIAL	B4104-0094
D10	0402-000378	DIODE-RECTIFIER;EG01C,1000V,500MA,DO-41	B4102-0006
D103	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	A4104-0053
D104	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	A4104-0053
D105	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	A4104-0053
D11	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D12	0402-000382	DIODE-RECTIFIER;ERA18-04V1,400V,800MA,DO-35	B4102-0047
D153	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	A4104-0053
D30	0402-000382	DIODE-RECTIFIER;ERA18-04V1,400V,800MA,DO-35	B4102-0047
D31	0402-000382	DIODE-RECTIFIER;ERA18-04V1,400V,800MA,DO-35	B4102-0047
D32	B4102-0050	DIODE-FR;D3L20U 200V 2.5A 35NS STICK	
D33	B4102-0050	DIODE-FR;D3L20U 200V 2.5A 35NS STICK	
D34	0402-000382	DIODE-RECTIFIER;ERA18-04V1,400V,800MA,DO-35	B4102-0047
D35	0402-000382	DIODE-RECTIFIER;ERA18-04V1,400V,800MA,DO-35	B4102-0047
⚠ F01	B3065-0157	FUSE;FST 250V 1.6A 20MM SEMKO S505 C	
⚠ IC01	A4008-1122	IC;KA7552 DIP	
⚠ IC02	B4161-0032	PHOTO-COUPLER;PC121F ST DIP	
IC03	A4008-0757	IC;KA431Z TO-92 TAPING	
⚠ L01	A1151-0023	COIL-LINE FILTER;SHL030 25MH 1.5 STICK	
L02	A1130-0077	COIL-CHOKE;10UH-J RA Q80 F150KHZ	

Loc. No	New Part No	Description and Specification	Old Part No
L30	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
L31	A1130-0077	COIL-CHOKE;10UH-J RA Q80 F150KHZ	
L32	A1130-0077	COIL-CHOKE;10UH-J RA Q80 F150KHZ	
L33	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
L40	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
L41	A1160-0016	INDUCTOR;70UH-M RT BFS3565R2F	
⚠ PT01	AC26-20001T	TRANS-SWITCHING;P;85-276V,50HZ,ST,-,-,-,-	A1206-0072
Q03	0501-000610	TR-SMALL SIGNAL;KSA928A,PNP,-30V,-30V,-2A,1W,T	62147-401-835
Q04	0504-000116	TR-DIGITAL;KSR1001,NPN,300MW,4.7K-4.7K,TO	62137-701-010
Q05	0501-000616	TR-SMALL SIGNAL;KSC2328A,NPN,30V,30V,2A,1W,TO-	62137-302-441
⚠ Q1	0505-001017	FET-SILICON;2SK903-MR,N,800V,3A,4OHM,40W,T	
R10	2006-000262	R-CEMENT;2.7OHM,10%,2W,CB,ST,7.5X11X20.	A1014-0053
R101	2004-000436	R-METAL;1KOHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0796
R105	2007-001584	R-CHIP,MELF;2.2KOHM,5%,1/8W,DB,BK,2012	A1020-0322
R109	2007-001534	R-CHIP,MELF;33KOHM,5%,1/8W,DB,BK,2012	A1020-0321
R11	2004-001167	R-METAL;62KOHM,5%,1/4W,AD,TP,2.4X6.4MM	A1006-0793
R12	2004-001167	R-METAL;62KOHM,5%,1/4W,AD,TP,2.4X6.4MM	A1006-0793
R13	2004-000801	R-METAL;33KOHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0809
R14	2004-001167	R-METAL;62KOHM,5%,1/4W,AD,TP,2.4X6.4MM	A1006-0793
R15	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-151
R16	2001-000708	R-CARBON;39OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-390
R17	2003-000273	R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM	A1004-0198
R18	2003-000273	R-METAL OXIDE;33KOHM,5%,2W,AA,TP,6X16MM	A1004-0198
R19	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-104
R20	2001-000568	R-CARBON;27OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-270
R21	2001-000362	R-CARBON;150OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-151
R22	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R23	2006-000260	R-CEMENT;0.47OHM,10%,2W,CB,ST,7.5X11X20	A1014-0055
R24	A1000-0560	R-METAL FILM;RM 1/8 T 512-F	
R30	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-221
R32	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R33	2004-000869	R-METAL;3KOHM,1%,1/8W,AA,TP,1.8X3.2MM	A1006-0592
R34	2004-000459	R-METAL;2.2KOHM,1%,1/8W,AA,TP,1.8X3.2M	A1006-0423
R36	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-104
R37	2004-000732	R-METAL;3.9KOHM,5%,1/4W,AA,TP,2.4X6.4M	A1006-0812
⚠ VA1	A1330-0061	VARISTOR;SVC471D-14A 470V 0.6W 2500A T	
⚠ VA2	A1330-0061	VARISTOR;SVC471D-14A 470V 0.6W 2500A T	
ZD102	0403-000555	DIODE-ZENER;MTZ30D,30V,29.02-30.51V,500MW,	62169-403-829
ZD11	0403-000555	DIODE-ZENER;MTZ30D,30V,29.02-30.51V,500MW,	62169-403-829
ZD12	0403-000539	DIODE-ZENER;MTZ18C,18V,17.42-18.33V,500MW,	62169-423-030
ZD13	0403-000294	DIODE-ZENER;MTZ4.7B,4.7V,4.55-4.80V,500MW,	A4106-0006
		System Control Parts	
C601	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C602	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C603	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C604	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C606	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C607	2409-000108	C-EDL;0.1F,-,5.5V,-,12.5X11.5X5,5MM,	A1104-0294
C608	2401-001441	C-AL;470UF,20%,6.3V,GP,8X11.5,3.5MM	61637-502-471
C609	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C610	2203-001580	C-CERAMIC,CHIP MELF;15PF,5%,50V,SL,2012,2MM,TP	A1100-0443
C611	2203-001580	C-CERAMIC,CHIP MELF;15PF,5%,50V,SL,2012,2MM,TP	A1100-0443
C612	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C613	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C614	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C615	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,3.5X19MM,	61407-117-228
C616	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C617	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	

Loc. No	New Part No	Description and Specification	Old Part No
C618	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C619	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C620	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
CN601	3711-002445	CONNECTOR-HEADER;BOX,2P,2R,1.5MM,STRAIGHT,SN	B6010-0915
CN602	A6010-1366	CONNECTOR-WAFER;35223-2010 WHT MOLEX SIDE ENTRY	
CN603	A6010-1366	CONNECTOR-WAFER;35223-2010 WHT MOLEX SIDE ENTRY	
D601	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D602	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	A4104-0053
D603	0402-000127	DIODE-RECTIFIER;1N4002,100V,1A,DO-41	A4104-0053
IC601	67199-0342-00	MICOM;HD6433726SC49F SV-85XK QFP	
IC602	62119-401-300	IC;KA8301(N.M)	
IC603	A4008-0754	IC;KA7533 DIP	
IC604	B4000-0050	IC-EEPROM;XLS24C04P DIP	
L601	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
LD601	B4150-0286	LED-INFRARED;GL381J1 YEL 950NM/3.5V	
PT601	B4161-0036	PHOTO-INTERRUPTER;SG-105LF3 ST	
PT602	B4161-0036	PHOTO-INTERRUPTER;SG-105LF3 ST	
Q601	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q602	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q607	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q608	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
R601	2007-001526	R-CHIP,MELF;36KOHM,5%,1/8W,DB,BK,2012	A1020-0795
R603	2001-000411	R-CARBON;18KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-183
R604	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-224
R605	2001-000832	R-CARBON;510OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-511
R606	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-224
R607	2007-001495	R-CHIP,MELF;510OHM,5%,1/8W,DB,BK,2012	A1020-0338
R608	2007-001472	R-CHIP,MELF;68KOHM,5%,1/8W,DB,BK,2012	A1020-0811
R609	2007-001495	R-CHIP,MELF;510OHM,5%,1/8W,DB,BK,2012	A1020-0338
R610	2001-000568	R-CARBON;27OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-270
R611	2007-001629	R-CHIP,MELF;1.8KOHM,5%,1/8W,DB,BK,2012	A1020-0325
R612	2007-001503	R-CHIP,MELF;47KOHM,5%,1/8W,DB,BK,2012	A1020-0825
R613	2003-000259	R-METAL OXIDE;3.9OHM,5%,2W,AE,TP,6X16MM	A1004-0357
R615	2001-000837	R-CARBON;51KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-513
R616	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R617	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-472
R618	2007-001629	R-CHIP,MELF;1.8KOHM,5%,1/8W,DB,BK,2012	A1020-0325
R619	2007-001503	R-CHIP,MELF;47KOHM,5%,1/8W,DB,BK,2012	A1020-0825
R620	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R621	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R622	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R623	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R625	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R626	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R627	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R628	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R629	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R632	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R633	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R634	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R635	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R637	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R638	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R641	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R644	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R648	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R649	2007-001572	R-CHIP,MELF;220KOHM,5%,1/8W,DB,BK,2012	A1020-0442
R650	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102

Loc. No	New Part No	Description and Specification	Old Part No
R651	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-224
R662	2007-001601	R-CHIP,MELF;15KOHM,5%,1/8W,DB,BK,2012	A1020-0329
R663	2007-001601	R-CHIP,MELF;15KOHM,5%,1/8W,DB,BK,2012	A1020-0329
R664	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R665	2007-001612	R-CHIP,MELF;12KOHM,5%,1/8W,DB,BK,2012	A1020-0774
R666	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R667	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R670	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R690	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R691	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R692	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R693	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R696	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
S601	B4064-0007	TR-PHOTO;PT495F 35V 20MA 50MW 860NM/1V 20DEG	
S602	B4064-0007	TR-PHOTO;PT495F 35V 20MA 50MW 860NM/1V 20DEG	
SW601	66203-0020-00	SWITCH-PROGRAM;MXS00280MLB0	
W273	2701-000117	INDUCTOR-AXIAL;10UH,5%,2.4X3.4MM	62427-020-011
XT601	B1283-0036	RESONATOR-CERAMIC;8MHZ EFOEC8004T4 3/CN J TAPG	
XT602	64539-021-009	CRYSTAL;32.768KHZ	
		Servo Parts	
C201	2203-000979	C-CERAMIC,CHIP;47NF,10%,50V,X7R,2012,-,TP	A1100-0135
C202	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C203	2203-001602	C-CERAMIC,CHIP;220NF,+80-20%,50V,Z5U,3216,3.2	A1100-0046
C204	2401-001239	C-AL;47UF,20%,25V,GP,4X5,1.5MM,	61617-405-470
C206	2401-001250	C-AL;4.7UF,20%,35V,GP,4X5,2.5MM,TP	A1104-0609
C207	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C208	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C209	2203-001584	C-CERAMIC,CHIP MELF;180PF,10%,50V,Y5E,2012,2MM,TP	A1100-0439
C210	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,3.5X19MM,	61407-117-228
C211	2401-001036	C-AL;33.0UF,20%,16V,GP,6.3X5,2.5MM,	A1104-0674
C212	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C213	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C214	2203-001602	C-CERAMIC,CHIP;220NF,+80-20%,50V,Z5U,3216,3.2	A1100-0046
C220	2401-001250	C-AL;4.7UF,20%,35V,GP,4X5,2.5MM,TP	A1104-0609
C223	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C224	2203-001680	C-CERAMIC,CHIP;68NF,20%,50V,Z5U,2012,2MM,TP	A1100-0040
C225	2401-000591	C-AL;1UF,20%,50V,BP,3X5,2.5MM,TP	A1104-0610
C226	2203-001602	C-CERAMIC,CHIP;220NF,+80-20%,50V,Z5U,3216,3.2	A1100-0046
C227	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C228	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C233	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C235	2203-001602	C-CERAMIC,CHIP;220NF,+80-20%,50V,Z5U,3216,3.2	A1100-0046
C238	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C239	A1100-0039	C-CERAMIC,CHIP;CK 73 X7R 50V T 153-K C2012 21B 153	
C240	2203-001602	C-CERAMIC,CHIP;220NF,+80-20%,50V,Z5U,3216,3.2	A1100-0046
C241	A1100-0855	C-CERAMIC,CHIP;CK OB Y5P 50V 221-K 20X12 UCN053B22	
C242	A1100-0855	C-CERAMIC,CHIP;CK OB Y5P 50V 221-K 20X12 UCN053B22	
C250	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C255	2401-001239	C-AL;47UF,20%,25V,GP,4X5,1.5MM,	61617-405-470
C256	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C260	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C270	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
CN201	3711-002443	CONNECTOR-HEADER;BOX,9P,2R,2.0MM,STRAIGHT,SN	B6010-0855
CN202	3711-002444	CONNECTOR-HEADER;BOX,6P,2R,2.0MM,STRAIGHT,SN	B6010-0857
D202	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D203	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D204	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D205	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482

Loc. No	New Part No	Description and Specification	Old Part No
D207	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
IC201	A4008-1247	IC;KA8334B QFP 60PIN TRAY	
L201	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q201	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q202	0501-000231	TR-SMALL SIGNAL;2SD1468SQ,NPN,30V,15V,1A,300MW	A4050-0001
Q203	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
R201	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R202	2007-001505	R-CHIP,MELF;470OHM,5%,1/8W,DB,BK,2012	A1020-0824
R203	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R204	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R205	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R206	2007-001557	R-CHIP,MELF;270OHM,5%,1/8W,DB,BK,2012	A1020-0789
R207	2001-001000	R-CARBON;82KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-823
R208	2007-001503	R-CHIP,MELF;47KOHM,5%,1/8W,DB,BK,2012	A1020-0825
R209	2007-001472	R-CHIP,MELF;68KOHM,5%,1/8W,DB,BK,2012	A1020-0811
R211	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R212	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R213	2007-001503	R-CHIP,MELF;47KOHM,5%,1/8W,DB,BK,2012	A1020-0825
R214	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R215	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-473
R216	2007-001627	R-CHIP,MELF;100KOHM,5%,1/8W,DB,BK,2012	A1020-0544
R217	2007-001526	R-CHIP,MELF;36KOHM,5%,1/8W,DB,BK,2012	A1020-0795
R220	2007-001627	R-CHIP,MELF;100KOHM,5%,1/8W,DB,BK,2012	A1020-0544
R221	2007-001572	R-CHIP,MELF;220KOHM,5%,1/8W,DB,BK,2012	A1020-0442
R222	2001-000012	R-CARBON;680KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-684
R223	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R224	2007-001503	R-CHIP,MELF;47KOHM,5%,1/8W,DB,BK,2012	A1020-0825
R225	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R226	2007-001490	R-CHIP,MELF;560KOHM,5%,1/8W,DB,BK,2012	A1020-0808
R227	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-393
R228	2007-001555	R-CHIP,MELF;27KOHM,5%,1/8W,DB,BK,2012	A1020-0790
R229	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R230	2007-001559	R-CHIP,MELF;270KOHM,5%,1/8W,DB,BK,2012	A1020-0791
R232	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R234	2007-001601	R-CHIP,MELF;15KOHM,5%,1/8W,DB,BK,2012	A1020-0329
R235	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R236	2007-001559	R-CHIP,MELF;270KOHM,5%,1/8W,DB,BK,2012	A1020-0791
R237	2007-001534	R-CHIP,MELF;33KOHM,5%,1/8W,DB,BK,2012	A1020-0321
R239	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R241	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R242	2007-001578	R-CHIP,MELF;2.7KOHM,5%,1/8W,DB,BK,2012	A1020-0323
R243	2001-000718	R-CARBON;4.3KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-432
R244	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-222
R247	2007-001557	R-CHIP,MELF;270OHM,5%,1/8W,DB,BK,2012	A1020-0789
R251	2007-001612	R-CHIP,MELF;12KOHM,5%,1/8W,DB,BK,2012	A1020-0174
R254	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R255	61048-177-333	R-CARBON;RD 1/8 T 333-J	
R256	2001-000563	R-CARBON;27KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-273
R258	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
R259	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R260	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R262	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R271	2007-001557	R-CHIP,MELF;270OHM,5%,1/8W,DB,BK,2012	A1020-0789
W330	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-222
		Video Parts	
C305	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
C307	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C308	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	

Loc. No	New Part No	Description and Specification	Old Part No
C310	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C311	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C312	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C314	2401-001912	C-AL;1UF,20%,50V,GP,5X11MM,2MM,BK	61637-208-010
C315	2401-001511	C-AL;47UF,20%,16V,GP,6X7,2.5MM,	61617-404-470
C316	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C319	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C320	2203-001566	C-CERAMIC,CHIP MELF;10PF,0.25PF,50V,SL,2012,2MM,TP	A1100-0442
C321	61407-101-730	C-CERAMIC.TEMP;CC45 SL TAPG 50V 150-K	
C322	2203-001671	C-CERAMIC,CHIP MELF;56PF,5%,50V,Y5E,2012,2MM,TP	A1100-0496
C323	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C324	2203-001589	C-CERAMIC,CHIP MELF;18PF,5%,50V,SL,2012,2MM,TP	A1100-0507
C326	2203-001659	C-CERAMIC,CHIP MELF;47PF,5%,50V,SL,2012,2MM,TP	A1100-0445
C327	2202-000164	C-CERAMIC,MLC-AXIAL;180PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-184
C328	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C329	2203-001589	C-CERAMIC,CHIP MELF;18PF,5%,50V,SL,2012,2MM,TP	A1100-0507
C330	2203-001637	C-CERAMIC,CHIP MELF;33PF,5%,50V,SL,2012,2MM,TP	A1100-0494
C333	2203-000840	C-CERAMIC,CHIP;390PF,5%,50V,NPO,2012,-,TP	A1100-0071
C334	2203-001672	C-CERAMIC,CHIP MELF;5PF,0.25PF,50V,SL,2012,2MM,TP	A1100-0446
C335	2203-000609	C-CERAMIC,CHIP;22NF,10%,50V,X7R,2012,-,TP	A1100-0044
C336	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C338	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C339	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C340	2401-001475	C-AL;47UF,20%,10V,GP,6.3X5,5MM,TP	A1104-0612
C341	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C342	2203-001672	C-CERAMIC,CHIP MELF;5PF,0.25PF,50V,SL,2012,2MM,TP	A1100-0446
C343	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C344	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,3.5X19MM,	61407-117-228
C345	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C346	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C348	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C349	2203-000979	C-CERAMIC,CHIP;47NF,10%,50V,X7R,2012,-,TP	A1100-0135
C350	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C352	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C353	2203-000979	C-CERAMIC,CHIP;47NF,10%,50V,X7R,2012,-,TP	A1100-0135
C354	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C355	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C356	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C357	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
C358	2203-000979	C-CERAMIC,CHIP;47NF,10%,50V,X7R,2012,-,TP	A1100-0135
C359	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C360	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C361	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C362	2203-000595	C-CERAMIC,CHIP;220PF,5%,50V,NPO,2012,-,TP	A1100-0062
C364	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C365	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C366	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C367	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C368	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C369	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C370	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C371	2203-001682	C-CERAMIC,CHIP MELF;68PF,10%,50V,Y5E,2012,2MM,TP	A1100-0438
C374	2401-001915	C-AL;1UF,20%,50V,GP,3X5,1MM,TP	A1104-0608
C375	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C376	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C377	2401-001475	C-AL;47UF,20%,10V,GP,6.3X5,5MM,TP	A1104-0612
C380	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C381	2203-000316	C-CERAMIC,CHIP;120PF,5%,50V,NPO,2012,-,TP	A1100-0036

Loc. No	New Part No	Description and Specification	Old Part No
C382	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C387	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C388	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C390	2203-001644	C-CERAMIC,CHIP MELF;39PF,5%,50V,SL,2012,2MM,TP	A1100-0436
C392	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C394	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C396	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C399	2203-001246	C-CERAMIC,CHIP;82PF,5%,50V,NPO,2012,-,TP	A1100-0080
CN301	3708-000320	CONNECTOR-FPC/FC/PIC;8P,1.25MM,STRAIGHT,SN	B6010-0852
D302	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D304	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D307	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D318	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D350	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D353	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
IC301	B4012-0165	IC-LINEAR;LA7411 DIP PRE-AMP	
IC302	1204-000329	IC-VIDEO PROCESS;LA7449,DIP,48P,600MIL,PLASTIC,	B4012-0567
IC303	B4012-0277	IC-LINEAR;LC89970 DIP	
L302	2702-000119	INDUCTOR-RADIAL;150UH,5%,6X6.4MM	62427-812-151
L303	2701-000113	INDUCTOR-AXIAL;100UH,5%,2.5X3.4MM	62427-020-101
L304	2701-000160	INDUCTOR-AXIAL;22UH,5%,2.4X3.4MM	62427-020-220
L305	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L307	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG	
L308	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
L309	2702-000149	INDUCTOR-RADIAL;330UH,5%,6X6.4MM	62427-812-331
L314	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L315	2702-000108	INDUCTOR-RADIAL;100UH,5%,6X6.4MM	62427-812-101
L316	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L321	2701-000160	INDUCTOR-AXIAL;22UH,5%,2.4X3.4MM	62427-020-220
L322	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
L331	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L350	2701-000147	INDUCTOR-AXIAL;2.2UH,5%,2.4X3.4MM	62427-010-229
L396	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q301	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q302	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q303	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q304	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q307	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q308	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q319	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	A4050-0224
Q325	0504-000153	TR-DIGITAL;KSR2102,PNP,200MW,10K-10K,SOT-	62129-101-130
Q326	0504-000129	TR-DIGITAL;KSR1104,NPN,200MW,47K-47K,SOT-	62129-101-173
Q328	0501-000312	TR-SMALL SIGNAL;KSA812,PNP,-60V,-50V,-100MA,15	62129-101-080
R301	2007-001574	R-CHIP,MELF;20KOHM,5%,1/8W,DB,BK,2012	A1020-0782
R304	2007-001627	R-CHIP,MELF;100KOHM,5%,1/8W,DB,BK,2012	A1020-0544
R305	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R307	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R309	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R310	2007-001563	R-CHIP,MELF;240OHM,5%,1/8W,DB,BK,2012	A1020-0785
R311	2007-001464	R-CHIP,MELF;750OHM,5%,1/8W,DB,BK,2012	A1020-0319
R312	2007-001557	R-CHIP,MELF;270OHM,5%,1/8W,DB,BK,2012	A1020-0789
R314	2007-001454	R-CHIP,MELF;820OHM,5%,1/8W,DB,BK,2012	A1020-0337
R315	2007-001570	R-CHIP,MELF;220OHM,5%,1/8W,DB,BK,2012	A1020-0331
R316	2007-001612	R-CHIP,MELF;12KOHM,5%,1/8W,DB,BK,2012	A1020-0774
R317	2007-001521	R-CHIP,MELF;390OHM,5%,1/8W,DB,BK,2012	A1020-0334
R318	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R321	2007-001488	R-CHIP,MELF;560OHM,5%,1/8W,DB,BK,2012	A1020-0336
R323	2007-001521	R-CHIP,MELF;390OHM,5%,1/8W,DB,BK,2012	A1020-0334

Loc. No	New Part No	Description and Specification	Old Part No
R324	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R325	2007-001578	R-CHIP,MELF;2.7KOHM,5%,1/8W,DB,BK,2012	A1020-0323
R326	2007-001474	R-CHIP,MELF;680OHM,5%,1/8W,DB,BK,2012	A1020-0723
R327	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
R328	2007-001555	R-CHIP,MELF;27KOHM,5%,1/8W,DB,BK,2012	A1020-0790
R329	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R330	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R331	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R335	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-152
R336	2007-001629	R-CHIP,MELF;1.8KOHM,5%,1/8W,DB,BK,2012	A1020-0325
R341	2007-001458	R-CHIP,MELF;8.2KOHM,5%,1/8W,DB,BK,2012	A1020-0339
R342	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R344	2007-001629	R-CHIP,MELF;1.8KOHM,5%,1/8W,DB,BK,2012	A1020-0325
R345	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R346	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R347	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R349	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R350	2007-001452	R-CHIP,MELF;82KOHM,5%,1/8W,DB,BK,2012	A1020-0333
R351	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R352	2007-001580	R-CHIP,MELF;2.4KOHM,5%,1/8W,DB,BK,2012	A1020-0786
R354	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
R369	2001-000857	R-CARBON;560OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-561
R370	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R371	2007-001468	R-CHIP,MELF;7.5KOHM,5%,1/8W,DB,BK,2012	A1020-0456
R372	2001-000006	R-CARBON;2.4KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-242
R383	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R384	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R385	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R398	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
R399	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
X301	B1280-0169	CRYSTAL;4.433619MHZ HC-49/U-S 15PPM SERIES TYPE	
		Tuner Parts	
C401	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C402	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C403	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C404	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C405	2301-000415	C-FILM,PEF;22NF,5%,50V,6.5X10.5X4MM,5MM,T	61507-121-511
C406	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)	
C407	2401-001239	C-AL;47UF,20%,25V,GP,4X5,1.5MM,	61617-405-470
C408	61637-208-229	C-ELEC;CEAP 50V 2.2M SA (5X11)	
C409	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C410	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C411	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C412	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C414	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-103
C415	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C416	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C417	2401-001239	C-AL;47UF,20%,25V,GP,4X5,1.5MM,	61617-405-470
C418	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C419	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C420	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C422	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C423	2401-001572	C-AL;47UF,20%,50V,GP,6.3*11,2.5MM,	61637-508-470
C424	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C425	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C426	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C427	2301-000129	C-FILM,PEF;100NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0125
C428	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104

Loc. No	New Part No	Description and Specification	Old Part No
C429	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C430	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C431	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C432	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C433	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C434	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C450	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C451	2203-001558	C-CERAMIC,CHIP MELF;100PF,10%,50V,Y5E,2012,2MM,TP	A1100-0433
C460	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
D401	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
FL401	2904-000271	FILTER-SAW AV;39.5MHZ,-,BK	B1245-0034
FL402	2903-000183	FILTER-CERAMIC;BP,5.5MHZ	B1243-0064
FL403	2903-000178	FILTER-CERAMIC;BP,5.5MHZ	B1243-0062
IC401	B4012-0046	IC-LINEAR;TDA9800 DIP NEG DEMOD	
IC402	62109-201-281	IC;KA7809	
IC403	62119-401-370	IC;LA7920	
IC404	62119-501-561	IC-L;KA33V TAPG	
J401	66449-0002-00	CABLE-IF;SD SD-C1238-3 L30	
L401	62427-020-010	COIL PEAKING.AXIAL;LAL02TB 1R0J TAPG	
L402	62427-812-139	COIL-PEAKING;EL0606RA 1.3UH-K	
L403	2702-000122	INDUCTOR-RADIAL;15UH,5%,6X6.4MM	62427-812-150
L404	66639-0003-00	FERRITE-BEAD INDUCTOR;NI-ZN FERRITE K150 BI3857	
Q401	0501-000436	TR-SMALL SIGNAL;KTC3197-AT,NPN,30V,25V,50MA,62	62137-702-010
Q402	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q403	0501-000616	TR-SMALL SIGNAL;KSC2328A,NPN,30V,30V,2A,1W,TO-	62137-302-441
Q404	0504-000118	TR-DIGITAL;KSR1003,NPN,300MW,22K-22K,TO-9	62137-701-012
Q405	0501-000610	TR-SMALL SIGNAL;KSA928A,PNP,-30V,-30V,-2A,1W,T	62147-401-835
Q408	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q415	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q416	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	A4050-0224
R401	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R402	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-271
R403	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R404	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R405	2007-001521	R-CHIP,MELF;390OHM,5%,1/8W,DB,BK,2012	A1020-0334
R406	2001-000793	R-CARBON;47OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-470
R408	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
R409	2007-001625	R-CHIP,MELF;100OHM,5%,1/8W,DB,BK,3216	A1020-0543
R410	2007-001458	R-CHIP,MELF;8.2KOHM,5%,1/8W,DB,BK,2012	A1020-0339
R411	2007-001578	R-CHIP,MELF;2.7KOHM,5%,1/8W,DB,BK,2012	A1020-0323
R412	2007-001584	R-CHIP,MELF;2.2KOHM,5%,1/8W,DB,BK,2012	A1020-0322
R414	2007-001553	R-CHIP,MELF;2KOHM,5%,1/8W,DB,BK,2012	A1020-0537
R415	2001-000003	R-CARBON;330OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-331
R416	2001-000534	R-CARBON;240OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-241
R418	2001-000766	R-CARBON;43KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-433
R419	2007-001488	R-CHIP,MELF;560OHM,5%,1/8W,DB,BK,2012	A1020-0336
R420	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R421	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R422	2007-001603	R-CHIP,MELF;150OHM,5%,1/8W,DB,BK,2012	A1020-0777
R423	2007-001603	R-CHIP,MELF;150OHM,5%,1/8W,DB,BK,2012	A1020-0777
R424	2007-001570	R-CHIP,MELF;220OHM,5%,1/8W,DB,BK,2012	A1020-0331
R426	2004-000128	R-METAL;1.2KOHM,5%,1/4W,AA,TP,2.4X6.4M	A1006-0799
R427	2001-000522	R-CARBON;22KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-223
R428	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R429	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R430	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R431	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R432	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441

Loc. No	New Part No	Description and Specification	Old Part No
R433	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R434	2001-000595	R-CARBON;3.3MOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-335
R435	2001-000595	R-CARBON;3.3MOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-335
R436	2007-000689	R-CHIP;3.3MOHM,5%,1/10W,DA,TP,2012	61079-917-335
R437	2007-001452	R-CHIP,MELF;82KOHM,5%,1/8W,DB,BK,2012	A1020-0333
R438	2007-001452	R-CHIP,MELF;82KOHM,5%,1/8W,DB,BK,2012	A1020-0333
R439	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R440	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R441	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R442	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-152
R443	2004-000571	R-METAL;220OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0804
R444	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R445	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-222
R450	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
TL401	A1197-0004	TRANS-DET;9MM 0UH BLK 8PF 77.9MHZ M7T1 STICK	
U401	AC40-20001V	RF-MODULATOR;MDLD6D7A6A,PAL G	67189-0066-00
U402	AC40-10001X	TUNER;-,TEKE4-092A,75OHM,-,-	B1292-0063
VR401	2103-000307	VR-SEMI;22KOHM,30%,1/10W,TOP	B1054-0230
ZD401	0403-000295	DIODE-ZENER;MTZ5.1B,5.1V,4.94-5.20V,500MW,	62169-403-821
		I/O Parts (1 Scart)	
C4301	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4303	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-103
C4304	2203-000239	C-CERAMIC,CHIP;100PF,5%,50V,NPO,2012,-,TP	A1100-0009
C4309	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C4310	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4311	2401-001893	C-AL;100UF,20%,16V,-,8X9MM,2.5MM,BK	61617-404-101
C4312	2203-001558	C-CERAMIC,CHIP MELF;100PF,10%,50V,Y5E,2012,2MM,TP	A1100-0433
C4314	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4315	2401-001441	C-AL;470UF,20%,6.3V,GP,8X11.5,3.5MM	61637-502-471
C4316	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4317	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C4318	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C4319	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4320	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4321	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4322	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C4325	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4326	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4330	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4332	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C4334	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C4335	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C4336	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C4341	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C4344	2203-001682	C-CERAMIC,CHIP MELF;68PF,10%,50V,Y5E,2012,2MM,TP	A1100-0438
C4353	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C4354	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C4355	2401-001475	C-AL;47UF,20%,10V,GP,6.3X5,5MM,TP	A1104-0612
D4301	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4303	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4307	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4310	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4311	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
IC4302	62119-401-310	IC;KA8403	
IC4303	62119-401-310	IC;KA8403	
JC4301	3710-000482	CONNECTOR-SOCKET;21P,-,-,ANGLE,SN	A3040-0189
L4301	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
L4302	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150

Loc. No	New Part No	Description and Specification	Old Part No
L4303	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
Q4301	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4307	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4310	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	A4050-0224
Q4313	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
R4301	2001-000008	R-CARBON;15KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-153
R4312	2001-000857	R-CARBON;560OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-561
R4313	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R4314	2004-001239	R-METAL;75OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0823
R4316	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-750
R4317	2001-000924	R-CARBON;680OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-681
R4318	2001-000449	R-CARBON;2.2KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-222
R4319	2004-001192	R-METAL;680OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0818
R4322	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-821
R4330	2004-001192	R-METAL;680OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0818
R4331	2001-000802	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-562
R4335	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R4336	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R4340	2004-000790	R-METAL;330OHM,5%,1/4W,AA,TP,2.4X6.4M	A1006-0808
W282	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-102
ZD4301	0403-000290	DIODE-ZENER;MTZ12B,12V,11.44-12.03V,500MW,	62169-403-826
		I/O Parts (2 Scart)	
C4301	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4303	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-103
C4305	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4306	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4307	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-103
C4308	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4309	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C4310	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4311	2401-001893	C-AL;100UF,20%,16V,-,8X9MM,2.5MM,BK	61617-404-101
C4312	2203-001558	C-CERAMIC,CHIP MELF;100PF,10%,50V,Y5E,2012,2MM,TP	A1100-0433
C4314	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4315	2401-001441	C-AL;470UF,20%,6.3V,GP,8X11.5,3.5MM	61637-502-471
C4316	2203-001696	C-CERAMIC,CHIP MELF;82PF,10%,50V,Y5P,2012,2MM,TP	A1100-0970
C4317	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C4318	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C4319	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4320	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4321	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4322	A1100-0958	C-CERAMIC,CHIP;CK 0B Y5V 16V 103-Z 20X12 ECN053F10	
C4323	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4324	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4325	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4326	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4328	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4329	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C4330	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C4331	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C4332	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C4333	A1100-0958	C-CERAMIC,CHIP;CK 0B Y5V 16V 103-Z 20X12 ECN053F10	
C4334	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C4335	2203-001591	C-CERAMIC,CHIP MELF;1NF,20%,25V,Y5S,2012,2MM,TP	A1100-0444
C4335	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C4340	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C4344	2203-001682	C-CERAMIC,CHIP MELF;68PF,10%,50V,Y5E,2012,2MM,TP	A1100-0438
C4352	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C4355	2401-001475	C-AL;47UF,20%,10V,GP,6.3X5,5MM,TP	A1104-0612

Loc. No	New Part No	Description and Specification	Old Part No
D4301	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4302	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4303	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4304	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4305	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4306	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4308	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4309	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4310	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D4311	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
IC4301	A4012-0288	IC-LINEAR;KA8119 DIP	
JC4301	3710-000480	CONNECTOR-SOCKET;42P,-,-,ANGLE,SN	A3040-0148
L4301	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
L4302	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
L4303	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
L4308	2701-000131	INDUCTOR-AXIAL;15UH,5%,2.4X3.4MM	62427-020-150
Q4301	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4302	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q4303	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q4305	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4306	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4307	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4308	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q4310	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	A4050-0224
Q4313	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q4320	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q4321	0501-000312	TR-SMALL SIGNAL;KSA812,PNP,-60V,-50V,-100MA,15	62129-101-080
R4301	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R4302	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-221
R4303	2001-000515	R-CARBON;220OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-221
R4304	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-471
R4305	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-750
R4306	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-750
R4310	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R4311	2001-000554	R-CARBON;270OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-271
R4312	2001-000857	R-CARBON;560OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-561
R4313	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0455
R4314	2004-001239	R-METAL;75OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0823
R4316	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-750
R4317	2001-000780	R-CARBON;470OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-471
R4318	2001-000241	R-CARBON;1.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-152
R4319	2004-001192	R-METAL;680OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0818
R4320	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R4321	2001-000290	R-CARBON;10KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-103
R4322	2001-000995	R-CARBON;820OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-821
R4323	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R4324	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R4327	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R4328	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R4330	2004-001192	R-METAL;680OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0818
R4331	2001-000802	R-CARBON;5.6KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-562
R4335	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R4336	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0327
R4340	2004-000856	R-METAL;390OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0811
R4341	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
W282	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
ZD4301	0403-000290	DIODE-ZENER;MTZ12B,12V,11.44-12.03V,500MW,	62169-403-826

Loc. No	New Part No	Description and Specification	Old Part No
		Audio Parts	
C501	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C502	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C503	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,2012,-,TP	A1100-0011
C504	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C505	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C506	2401-001022	C-AL;3.3UF,20%,50V,GP,5*11,2MM,	61637-208-339
C507	2401-001954	C-AL;4.7UF,20%,50V,GP,6.3X11MM,2.5M	61637-208-479
C508	A1100-0039	C-CERAMIC,CHIP;CK 73 X7R 50V T 153-K C2012 21B 153	
C509	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C510	2401-001912	C-AL;1UF,20%,50V,GP,5X11MM,2MM,BK	61637-208-010
C511	2401-001164	C-AL;33UF,20%,16V,GP,5*11,2MM,	61637-204-330
C512	2401-001912	C-AL;1UF,20%,50V,GP,5X11MM,2MM,BK	61637-208-010
C513	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,2012,-,TP	A1100-0011
C514	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,2012,-,TP	A1100-0011
C515	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C516	2203-001214	C-CERAMIC,CHIP;8.2NF,10%,50V,X7R,2012,-,TP	A1100-0024
C517	2203-001105	C-CERAMIC,CHIP;6.8NF,10%,50V,X7R,2012,-,TP	A1100-0869
C518	2203-001674	C-CERAMIC,CHIP;6.8NF,20%,16V,X7S,2012,2MM,TP	A1100-0925
C519	2301-000282	C-FILM,PEF;47NF,5%,100V,7.3X7X3.2X5,5MM,T	B1102-0258
C520	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C521	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,2012,-,TP	A1100-0011
C522	2203-000892	C-CERAMIC,CHIP;4.7NF,10%,50V,X7R,2012,-,TP	A1100-0020
C523	2203-000260	C-CERAMIC,CHIP;10NF,10%,50V,X7R,2012,-,TP	A1100-0011
C524	2203-001550	C-CERAMIC,CHIP;1.2NF,10%,50V,X7R,2012,2MM,TP	A1100-0129
C525	2203-001702	C-CERAMIC,CHIP;2.2NF,5%,50V,X7R,2012,-,TP	A1100-0063
C527	2301-000176	C-FILM,PEF;18NF,5%,50V,10X9X4.3X5,5MM,TP	B1102-0276
C528	2401-001975	C-AL;47UF,20%,16V,GP,5X11MM,2MM,BK	61637-204-470
C529	2301-000419	C-FILM,PEF;27NF,10%,50V,7.5X10.5X4MM,5MM,	61507-121-520
C531	2203-001558	C-CERAMIC,CHIP MELF;100PF,10%,50V,Y5E,2012,2MM,TP	A1100-0433
CN501	3708-000481	CONNECTOR-FPC/FC/PIC;6P,1.25MM,STRAIGHT,SN	B6010-0861
CN502	B6010-0436	CONNECTOR-WAFER;TMC-E02X-A1 BLK STICK	
D501	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
FL501	A1208-0004	TRANS-OSC;126QN-KS442321YCT 6.3X5MM 920UH BIAS BLK	
FL502	62429-014-110	COIL BIAS OSC;B02 70KHZ W(TOKO)VX1850	
IC501	B4012-0273	IC-LINEAR;LA7286 DIP	
L501	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L502	2702-000120	INDUCTOR-RADIAL;15MH,5%,6.2X7.4MM	62427-813-153
L503	2702-000108	INDUCTOR-RADIAL;100UH,5%,6X6.4MM	62427-812-101
L504	2702-000120	INDUCTOR-RADIAL;15MH,5%,6.2X7.4MM	62427-813-153
Q501	0501-000010	TR-SMALL SIGNAL;KSC1008-Y,NPN,80V,60V,700MA,80	62137-702-020
Q502	0501-000010	TR-SMALL SIGNAL;KSC1008-Y,NPN,80V,60V,700MA,80	62137-702-020
Q503	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q504	0504-000142	TR-DIGITAL;KSR2001,PNP,300MW,4.7K-4.7K,TO	A4050-0224
Q505	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
Q506	0504-000203	TR-DIGITAL;KSR1004,NPN,300MW,47K-47K,TO-9	62137-701-013
R501	2001-000325	R-CARBON;120OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-171-121
R503	2007-001538	R-CHIP,MELF;330KOHM,5%,1/8W,DB,BK,2012	A1020-0793
R504	2007-001612	R-CHIP,MELF;12KOHM,5%,1/8W,DB,BK,2012	A1020-0174
R505	2007-001546	R-CHIP,MELF;3.9KOHM,5%,1/8W,DB,BK,2012	A1020-0317
R506	2001-000454	R-CARBON;2.2MOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-171-225
R507	2001-000702	R-CARBON;39KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-171-393
R508	2001-000947	R-CARBON;7.5KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-171-752
R509	2007-001633	R-CHIP,MELF;1.5KOHM,5%,1/8W,DB,BK,2012	A1020-0155
R50A	2007-001501	R-CHIP,MELF;47OHM,5%,1/8W,DB,BK,2012	A1020-0002
R510	2007-001584	R-CHIP,MELF;2.2KOHM,5%,1/8W,DB,BK,2012	A1020-0222
R511	2007-001497	R-CHIP,MELF;5.6KOHM,5%,1/8W,DB,BK,2012	A1020-0227
R512	2007-001553	R-CHIP,MELF;2KOHM,5%,1/8W,DB,BK,2012	A1020-0137

Loc. No	New Part No	Description and Specification	Old Part No
R515	2007-001503	R-CHIP,MELF;47KOHM,5%,1/8W,DB,BK,2012	A1020-0825
R516	2001-000745	R-CARBON;4.7OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-479
R517	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R518	2001-000793	R-CARBON;47OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-470
R519	2001-000405	R-CARBON;180OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-181
R520	2007-001601	R-CHIP,MELF;15KOHM,5%,1/8W,DB,BK,2012	A1020-0329
R521	2007-001512	R-CHIP,MELF;4.7OHM,5%,1/8W,DB,BK,2012	A1020-0833
R522	2007-001568	R-CHIP,MELF;22KOHM,5%,1/8W,DB,BK,2012	A1020-0431
R528	2007-001637	R-CHIP,MELF;1.2KOHM,5%,1/8W,DB,BK,2012	A1020-0344
R531	2007-001517	R-CHIP,MELF;3KOHM,5%,1/8W,DB,BK,2012	A1020-0448
R532	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R533	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
		V.P.S Parts (Option)	
C6101	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C6102	2203-000363	C-CERAMIC,CHIP;150PF,5%,50V,NPO,2012,-,TP	A1100-0038
C6103	2203-001635	C-CERAMIC,CHIP;33NF,20%,50V,X7R,2012,2MM,TP	A1100-0051
C6105	2203-001635	C-CERAMIC,CHIP;33NF,20%,50V,X7R,2012,2MM,TP	A1100-0051
IC6101	62119-103-700	IC;SDA5642-5 DIP VPS	
R6101	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R6102	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R6103	2007-001627	R-CHIP,MELF;100KOHM,5%,1/8W,DB,BK,2012	A1020-0544
R6106	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R6110	2007-001482	R-CHIP,MELF;6.8KOHM,5%,1/8W,DB,BK,2012	A1020-0316
R6111	2007-001584	R-CHIP,MELF;2.2KOHM,5%,1/8W,DB,BK,2012	A1020-0322
R6112	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
R6113	2007-001456	R-CHIP,MELF;820KOHM,5%,1/8W,DB,BK,2012	A1020-0815
		P.D.C Parts (Option)	
C6101	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C6102	2203-000363	C-CERAMIC,CHIP;150PF,5%,50V,NPO,2012,-,TP	A1100-0038
C6104	2203-001597	C-CERAMIC,CHIP;2.2NF,20%,25V,X7S,2012,2MM,TP	A1100-0928
C6105	2203-001635	C-CERAMIC,CHIP;33NF,20%,50V,X7R,2012,2MM,TP	A1100-0051
C6106	2401-001083	C-AL;330NF,20%,50V,GP,5X11,2.5MM,TP	A1104-0515
IC6101	1204-000332	IC-DECODER;SDA5649,DIP,14P,300MIL,PLASTIC	B4008-1223
R6101	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R6102	2001-000281	R-CARBON;100OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-101
R6103	2007-001627	R-CHIP,MELF;100KOHM,5%,1/8W,DB,BK,2012	A1020-0544
R6106	2007-001586	R-CHIP,MELF;1MOHM,5%,1/8W,DB,BK,2012	A1020-0343
R6107	2007-000225	R-CHIP;1.2MOHM,5%,1/10W,DA,TP,2012	A1020-0302
R6108	2007-000225	R-CHIP;1.2MOHM,5%,1/10W,DA,TP,2012	A1020-0302
R6109	2007-001482	R-CHIP,MELF;6.8KOHM,5%,1/8W,DB,BK,2012	A1020-0316
R6110	2007-001482	R-CHIP,MELF;6.8KOHM,5%,1/8W,DB,BK,2012	A1020-0316
R6111	2007-001584	R-CHIP,MELF;2.2KOHM,5%,1/8W,DB,BK,2012	A1020-0322
R6112	2007-001623	R-CHIP,MELF;10KOHM,5%,1/8W,DB,BK,2012	A1020-0441
		O.S.D Parts	
C901	2401-000240	C-AL;100UF,20%,10V,GP,6*11MM,5MM,TP	61637-203-101
C902	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C903	2203-001571	C-CERAMIC,CHIP MELF;120PF,10%,50V,Y5E,2012,2MM,TP	A1100-0447
C904	2401-001912	C-AL;1UF,20%,50V,GP,5X11MM,2MM,BK	61637-208-010
C905	2202-000295	C-CERAMIC,MLC-AXIAL;68PF,5%,50V,SL,3.5X19MM,-,TP	61407-117-680
C906	2202-000295	C-CERAMIC,MLC-AXIAL;68PF,5%,50V,SL,3.5X19MM,-,TP	61407-117-680
C907	2203-001571	C-CERAMIC,CHIP MELF;120PF,10%,50V,Y5E,2012,2MM,TP	A1100-0447
C908	2203-001571	C-CERAMIC,CHIP MELF;120PF,10%,50V,Y5E,2012,2MM,TP	A1100-0447
C909	2202-000781	C-CERAMIC,MLC-AXIAL;100PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-103
C910	2401-001968	C-AL;470NF,20%,50V,GP,5X11MM,2MM,BK	61637-208-478
C911	2202-000821	C-CERAMIC,MLC-AXIAL;560PF,10%,50V,Y5P,3.5X19MM,-,T	61407-117-561
C913	2401-001912	C-AL;1UF,20%,50V,GP,5X11MM,2MM,BK	61637-208-010
C914	2401-000419	C-AL;10UF,20%,16V,GP,5X11,2.5MM,	61637-204-100
C915	2203-001574	C-CERAMIC,CHIP MELF;12PF,5%,50V,SL,2012,2MM,TP	A1100-0440

Loc. No	New Part No	Description and Specification	Old Part No
C916	2401-000240	C-AL;100UF,20%,10V,GP,6*11MM,5MM,TP	61637-203-101
C917	2203-001557	C-CERAMIC,CHIP;100NF,+80-20%,25V,Y5V,2012,2MM	A1100-0961
C918	2203-001614	C-CERAMIC,CHIP MELF;24PF,5%,50V,SL,2012,2MM,TP	A1100-0941
C919	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C922	2203-000609	C-CERAMIC,CHIP;22NF,10%,50V,X7R,2012,-,TP	A1100-0044
D901	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D902	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
IC901	A4008-1180	IC;KS5514-03 24S DIP	
L901	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L902	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L903	2701-000117	INDUCTOR-AXIAL;10UH,5%,2.4X3.4MM	62427-020-011
L904	2701-000113	INDUCTOR-AXIAL;100UH,5%,2.5X3.4MM	62427-020-101
R901	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-224
R902	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R903	2007-001625	R-CHIP,MELF;100OHM,5%,1/8W,DB,BK,3216	A1020-0543
R904	2001-000273	R-CARBON;100KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-104
R909	2007-001612	R-CHIP,MELF;12KOHM,5%,1/8W,DB,BK,2012	A1020-0774
R910	2007-001641	R-CHIP,MELF;0OHM,5%,1/8W,DB,BK,2012	A1020-0449
R930	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R931	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R932	2007-001589	R-CHIP,MELF;1KOHM,5%,1/8W,DB,BK,2012	A1020-0320
R933	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-472
R934	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-472
R935	2001-000734	R-CARBON;4.7KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-472
XT901	64539-012-543	CRYSTAL;17.734475M(20PPM)	
670	**Do not order**	**ASSY-F/TIMER**	**(S.N.A)**
C701	2401-001572	C-AL;47UF,20%,50V,GP,6.3*11,2.5MM,	61637-508-470
C702	2202-000797	C-CERAMIC,MLC-AXIAL;10NF,30%,16V,Y5P,3.5X19MM,-,TP	61407-117-104
C703	2401-001572	C-AL;47UF,20%,50V,GP,6.3*11,2.5MM,	61637-508-470
C704	2202-000795	C-CERAMIC,MLC-AXIAL;1NF,10%,50V,SL,3.5X19MM,-,TP	61407-117-102
C710	2201-000681	C-CERAMIC,DISC;82PF,5%,50V,SL,4X3.5MM,5MM,TP	61407-101-320
C711	2401-001904	C-AL;10UF,20%,16V,-,4X7MM,2.5MM,BK	61617-404-100
C712	A1100-0561	C-CERAMIC;CK OA Y 16V T 222-N	
C713	61617-405-479	C-ELEC;CEAP 25V 4.7M RSS(4X7)	
C714	2202-000807	C-CERAMIC,MLC-AXIAL;22NF,+80-20%,25V,Y5V,3.5X19MM,	61407-117-228
C720	2401-001572	C-AL;47UF,20%,50V,GP,6.3*11,2.5MM,	61637-508-470
CN701	A6010-1365	CONNECTOR-WAFER;35234-2010 WHT MOLEX	
CN702	A6010-1365	CONNECTOR-WAFER;35234-2010 WHT MOLEX	
D702	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D703	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D705	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D706	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D708	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D709	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D731	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D732	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D733	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D734	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D735	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D737	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D738	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D739	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D741	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D742	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D743	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D744	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D745	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
D746	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482

Loc. No	New Part No	Description and Specification	Old Part No
D747	0401-000101	DIODE-SWITCHING;1N4148,100V,200MA,500MW,4NS,DO	62169-406-482
DT701	AC07-20002K	VFD;SVV-9SS02,-,-,SV-80X	A4153-0076
JA701	3722-000438	JACK-PIN;1P/1C,PI3.3,-,SN	A3040-0085
JA702	A3040-0084	JACK-PIN;PI4 DSPS-8805-03W 3P GLD	
L701	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
LD701	62309-110-340	LED;GL-3HD7/GL3HD8	
Q701	0504-000116	TR-DIGITAL;KSR1001,NPN,300MW,4.7K-4.7K,TO	62137-701-010
R701	2001-000786	R-CARBON;47KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-473
R705	2001-000429	R-CARBON;1KOHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-102
R706	2004-000292	R-METAL;12OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0824
R707	2004-000233	R-METAL;10OHM,5%,1/4W,AA,TP,2.4X6.4MM	A1006-0794
R709	2001-000969	R-CARBON;75OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-750
R710	2001-000508	R-CARBON;220KOHM,5%,1/8W,AA,TP,1.8X3.2M	61048-177-224
R711	2001-000325	R-CARBON;120OHM,5%,1/8W,AA,TP,1.8X3.2MM	61048-177-121
RM701	A1294-0015	MODULE-REMOCON;GP1U781R/ASAN 38KHZ	
SW701	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW702	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW703	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW704	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW705	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW706	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW707	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW708	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW709	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW710	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW713	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW714	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW715	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW716	3404-000240	SWITCH-TACT;15V,20MA,160+-50GF,6X6MM,-	63599-016-070
SW726	3408-000112	SWITCH-SLIDE;12V,100MA,-,-	63519-073-021
VR701	2101-000101	VR-ROTARY;100KOHM,20%,1/10W,SIDE	B1052-0001
ZD701	0403-000339	DIODE-ZENER;UZ3.0B,3.0V,2.8-3.2V,500MW,DO-	62169-403-301
-	-	**REMOCON ASSY**	
	V9099-633-210	SV-35XK/SEG	
	V9099-633-211	SV-35XK/EDIS, AMFO, SECO, SEP, SEI, NSI	
	V9099-633-218	SV-36XK/SEG, ATR	
	V9099-633-219	SV-36XK/SECO, AMFO	
	V9099-633-204	SV-45XK/AMFO, EDIS	
	V9099-633-205	SV-45XK/SEG, ATR	
	V9099-633-206	SV-45XK/SECO, SEP, SEI, NSI	
-	V4043-0166-00	DOOR-BATTERY;ABS94HB T2 BLK NR-3346	
CT1	2401-001956	C-AL;4.7UF,20%,6.3V,GP,3X5MM,1.5MM,	61637-802-479
CT2	2203-000239	C-CERAMIC,CHIP;100PF,5%,50V,NPO,2012,-,TP	A1100-0009
CT3	2203-000239	C-CERAMIC,CHIP;100PF,5%,50V,NPO,2012,-,TP	A1100-0009
IC01	A4002-0652	IC-MCU;KS51810-76 V-PAL QFP BULK	
LDT1	A4150-0168	LED-INFRARED;SI5312-H NTR 940NM/1.4V	
QT1	0501-000534	TR-SMALL SIGNAL;2SC2412KR,NPN,50V,50V,150MA,20	A4050-0140
RT1	2007-000483	R-CHIP;1OHM,5%,1/10W,DA,TP,2012	61079-917-010
XT01	64539-102-311	CERAMIC RESONATOR;CSB455EBL/KBR455BKTL	

8. Block Diagrams

		Page
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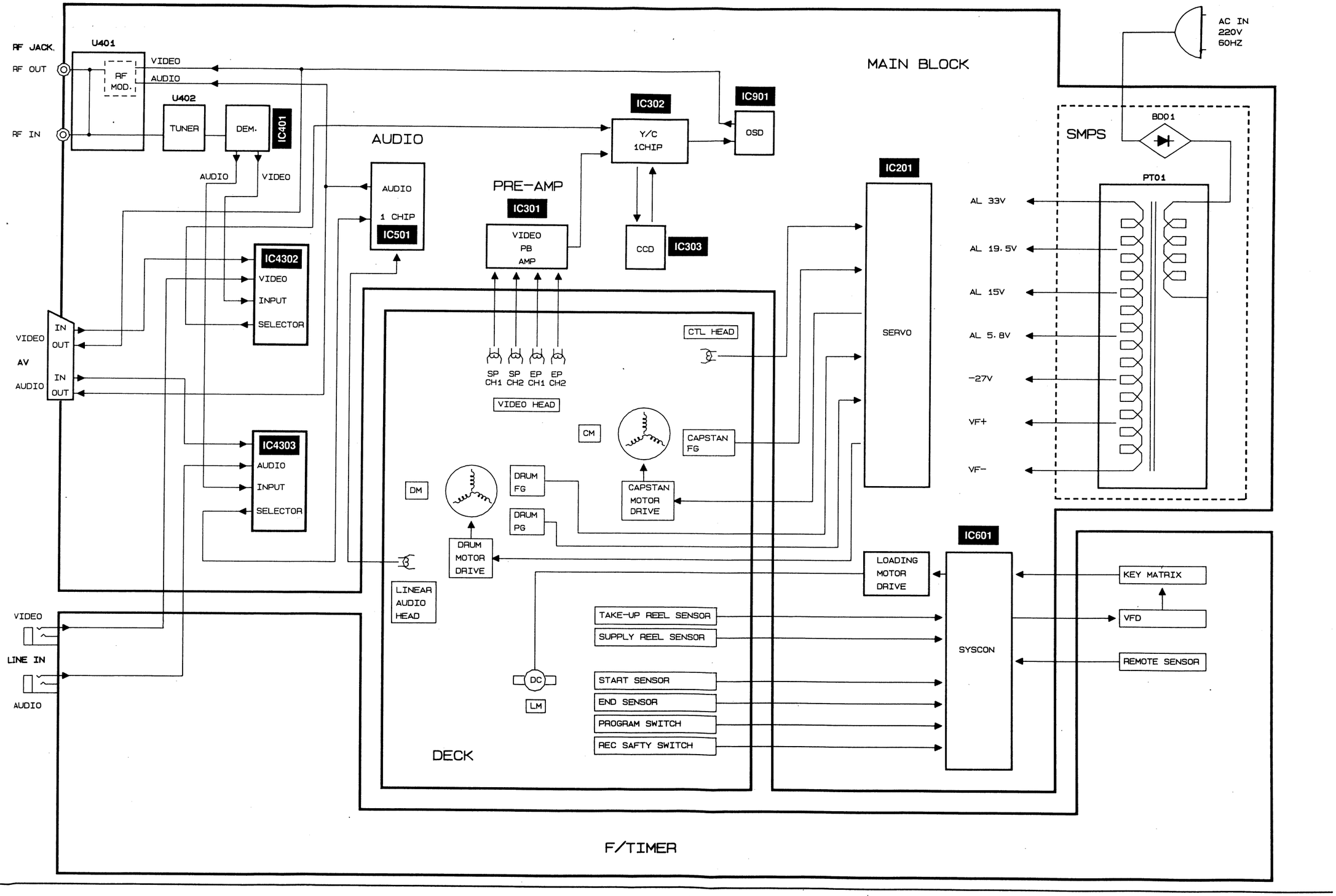
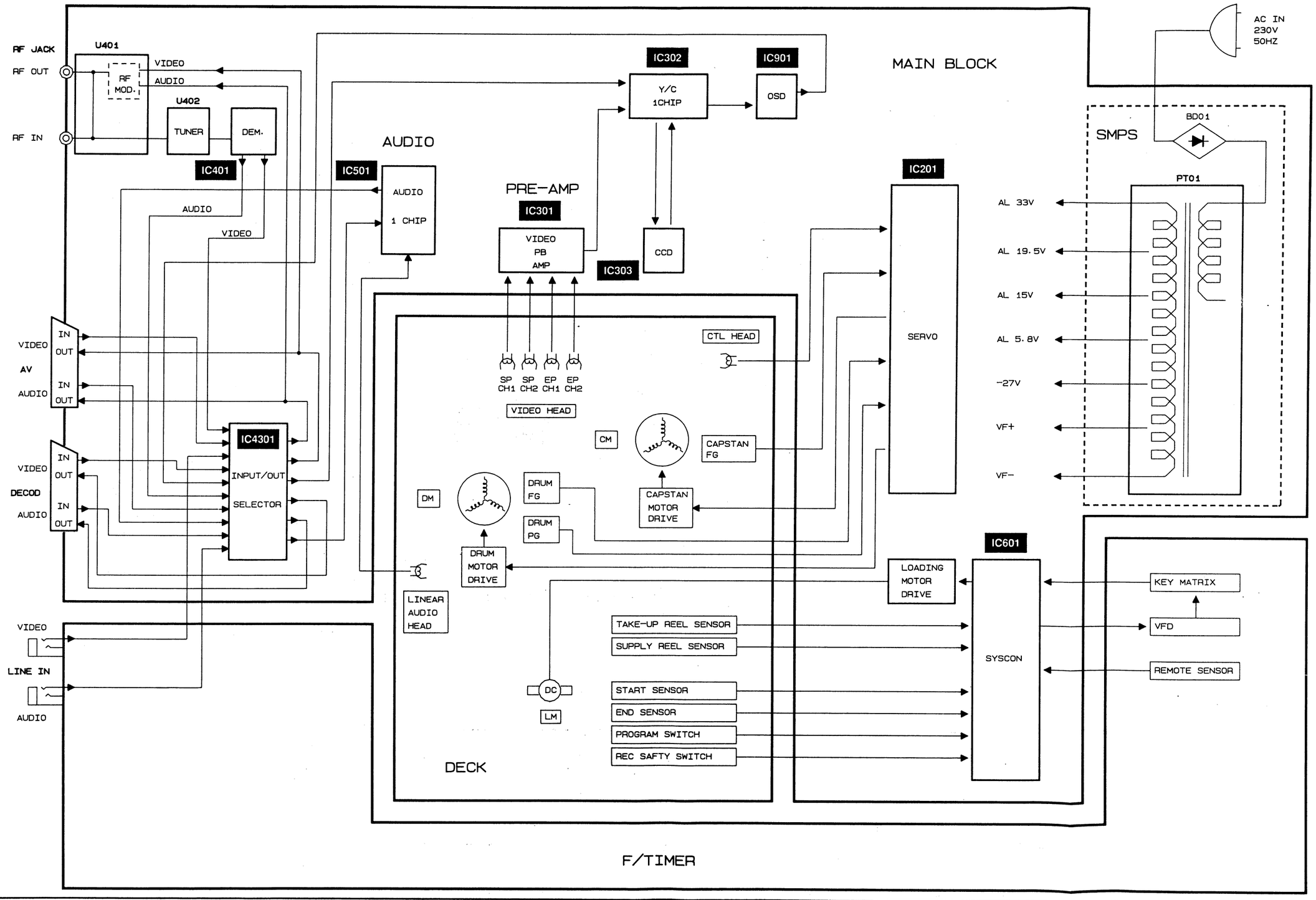
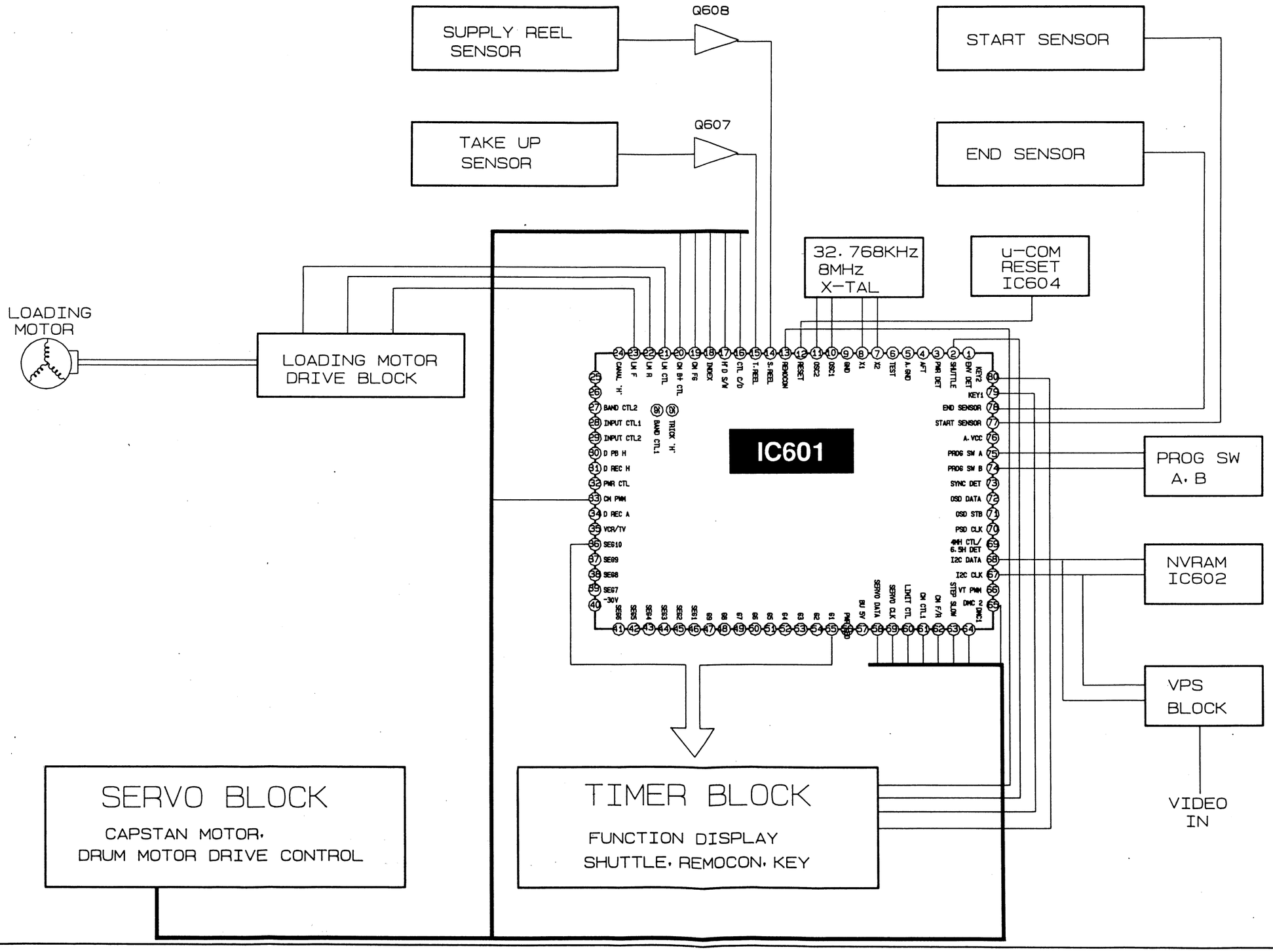
8-4	Video	8-5
8-5	O.S.D	8-6

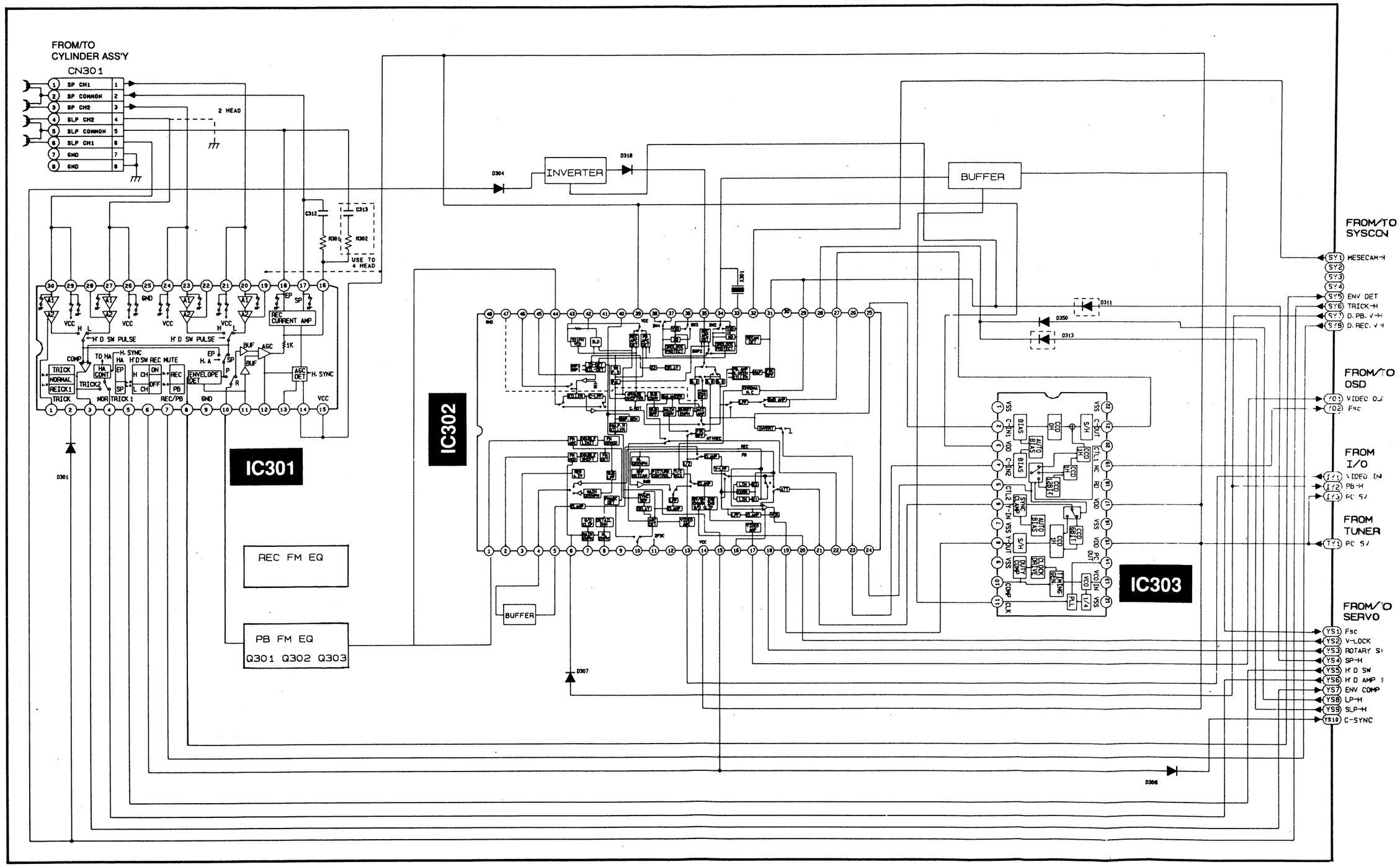
8-1 Overall Block Diagram (1 Scart)

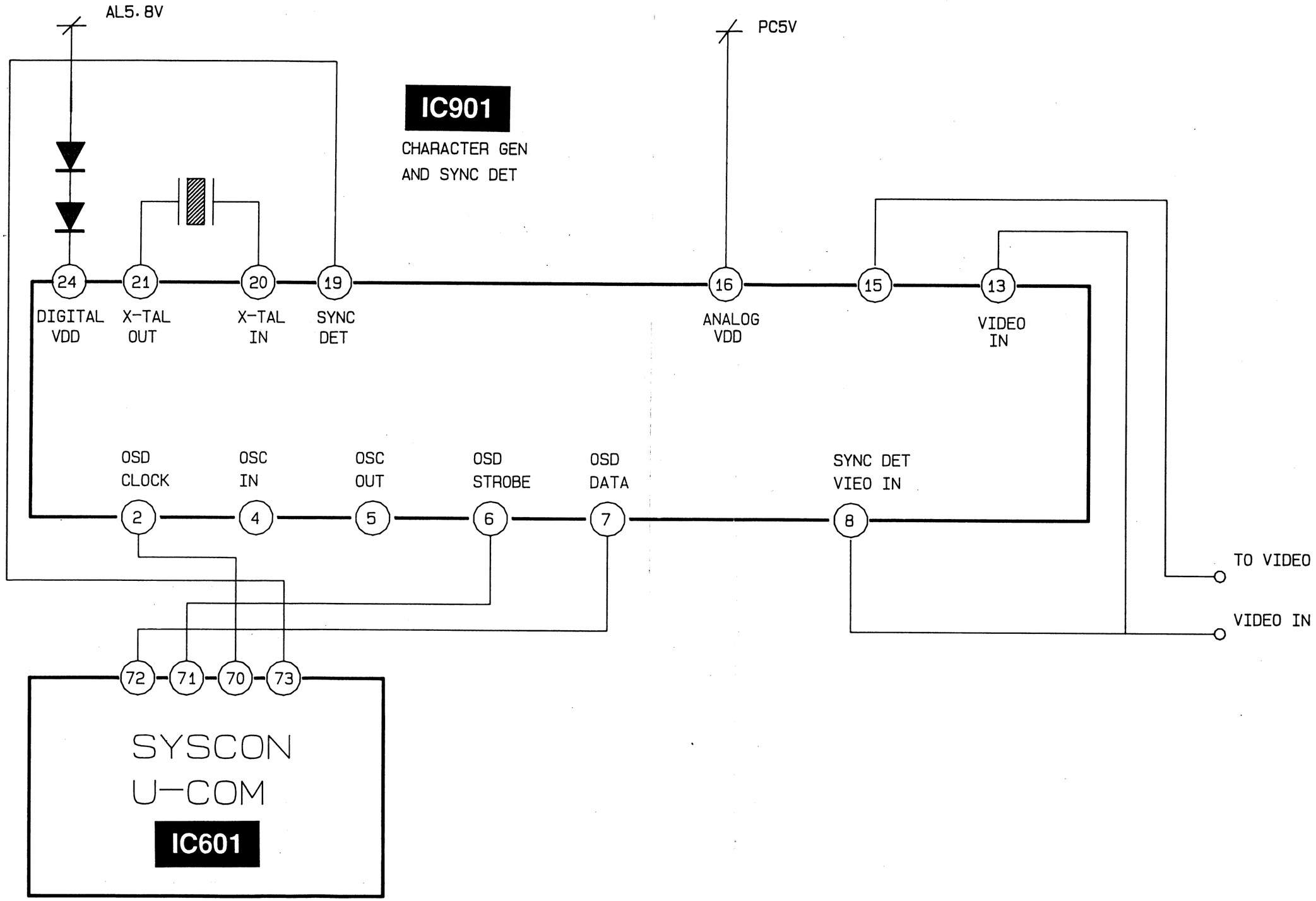


8-2 Overall Block Diagram (2 Scart)




SUPPLY REEL SENSOR
Q608
START SENSOR
TAKE UP SENSOR
Q607
END SENSOR
32.768KHz 8MHz X-TAL
u-COM RESET IC604
LOADING MOTOR
LOADING MOTOR DRIVE BLOCK
IC601
PROG SW A, B
NVRAM IC602
VPS BLOCK
VIDEO IN
SERVO BLOCK
CAPSTAN MOTOR, DRUM MOTOR DRIVE CONTROL
TIMER BLOCK
FUNCTION DISPLAY SHUTTLE, REMOCON, KEY


FROM/TO
CYLINDER ASS'Y
CN301
SP CH1
SP COMMON
SP CH2
SLP CH2
SLP COMMON
SLP CH1
GND
GND
2 HEAD
USE TO
4 HEAD
INVERTER
BUFFER
IC301
IC302
IC303
REC FM EQ
PB FM EQ
Q301 Q302 Q303
REC
CURRENT AMP
H SYNC
FROM/TO
SYSCON
MESECAM-H
ENV DET
TRICK-H
D. PB. V-H
D. REC. V-H
FROM/TO
OSD
VIDEO OUT
Fsc
FROM
I/O
VIDEO IN
PB-H
PC 5V
FROM
TUNER
PC 5V
FROM/TO
SERVO
Fsc
V-LOCK
ROTARY SI
SP-H
H.D SW
H.D AMP I
ENV COMP
LP-H
SLP-H
C-SYNC


AL5.8V
PC5V
IC901
CHARACTER GEN
AND SYNC DET
24
21
20
19
16
15
13
DIGITAL VDD
X-TAL OUT
X-TAL IN
SYNC DET
ANALOG VDD
VIDEO IN
OSD CLOCK
OSC IN
OSC OUT
OSD STROBE
OSD DATA
SYNC DET VIEO IN
2
4
5
6
7
8
TO VIDEO
VIDEO IN
72
71
70
73
SYSCON
U-COM
IC601

9. PCB Diagrams

		Page
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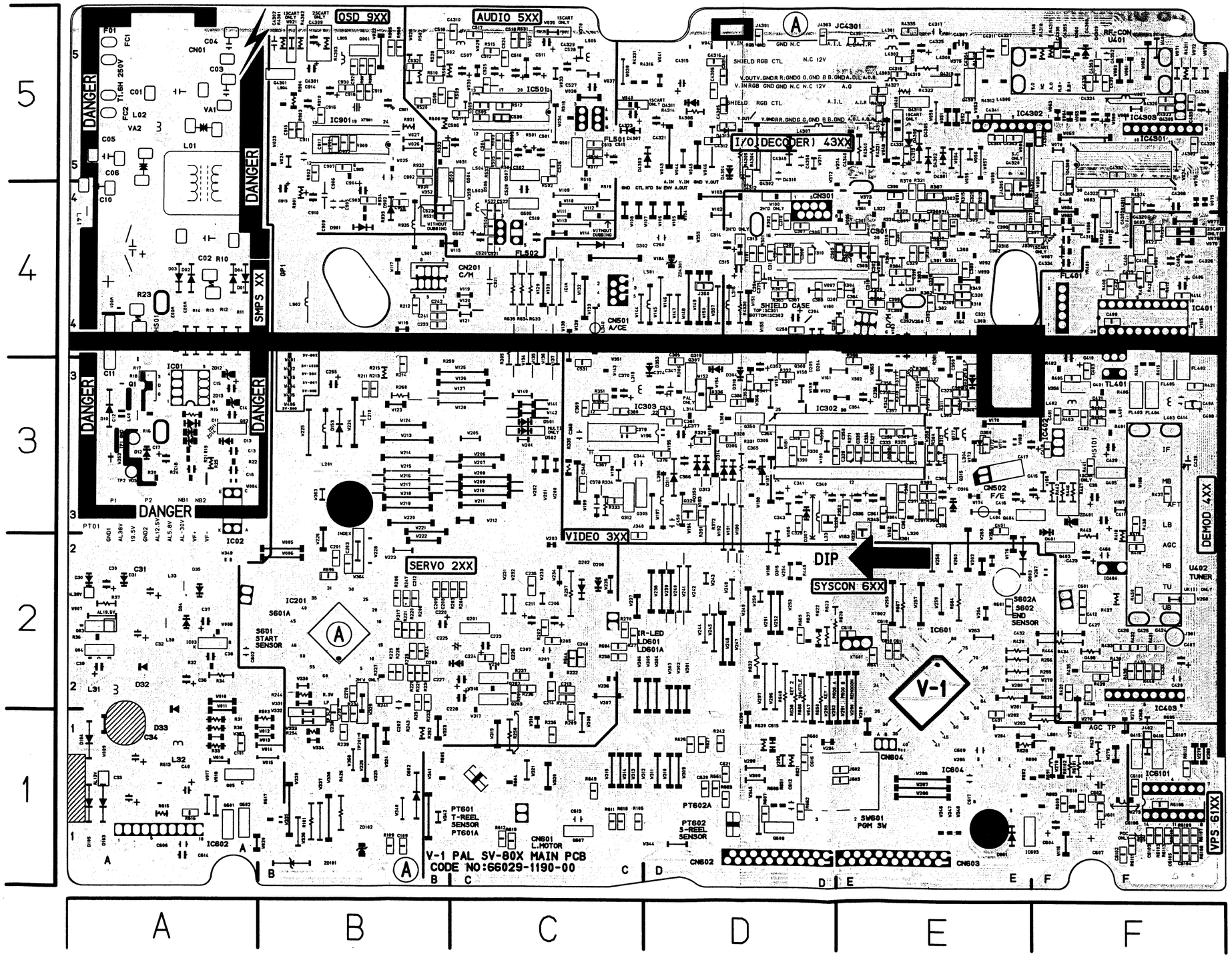
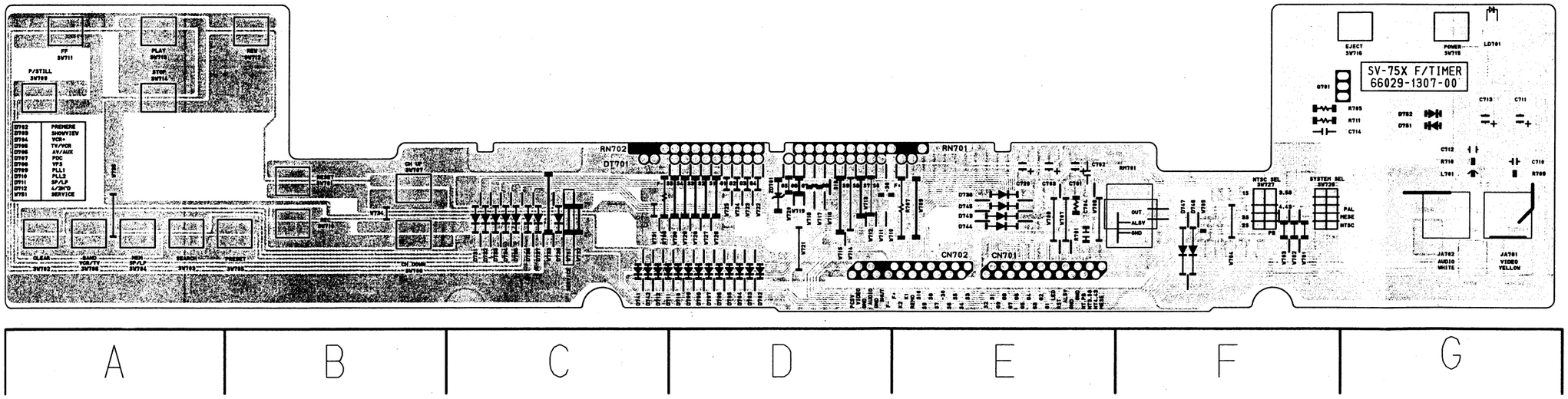
9-3	Function-Timer (SV-45XK)	9-4

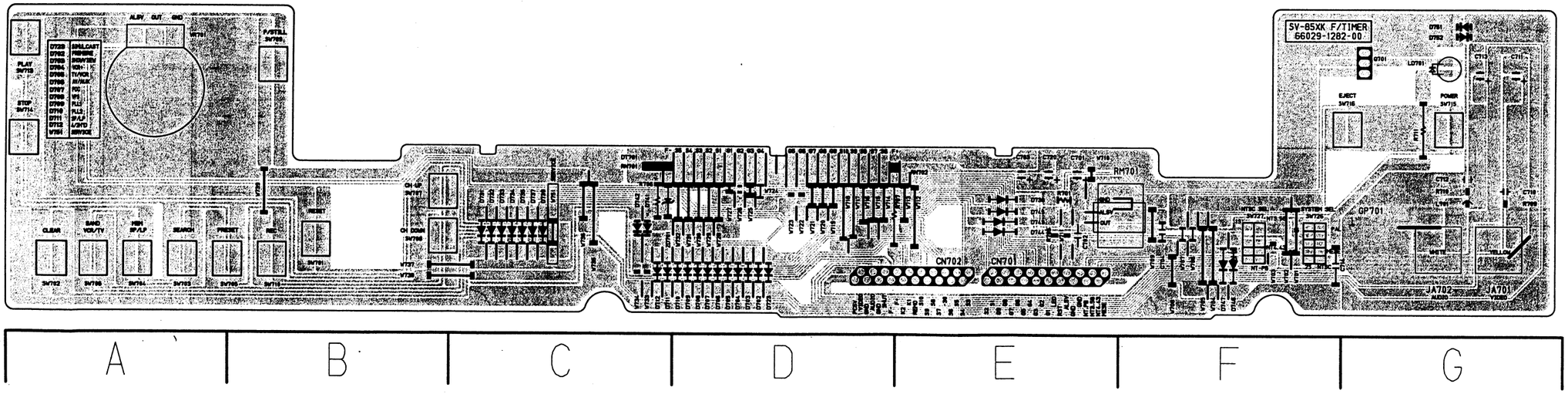


LOCATION	COORDINATES
CN01	5-A
CN201	4-B
CN202	4-E
CN301	4-D
CN501	4-C
CN502	3-E
CN601	1-C
CN602	1-D
CN603	1-E
CN604	1-E
F01	5-A
IC01	3-A
IC02	3-A
IC03	2-A
IC201	2-B
IC301	4-D
IC302	3-D
IC303	3-C
IC401	4-F
IC402	3-F
IC403	2-F
IC404	2-F
IC4301	5-F
IC4302	5-E
IC4303	5-F
IC501	5-C
IC601	2-E
IC602	1-A
IC603	1-E
IC604	1-E
IC8101	1-F
IC901	5-B
LD601	2-C
PT601	1-C
PT602	1-D
S601	2-B
S602	2-E
VR401	4-F

LOCATION	COORDINATES
Q01	3-A
Q02	3-A
Q03	2-A
Q04	2-A
Q05	1-A
Q201	2-C
Q202	2-C
Q203	2-C
Q301	4-E
Q302	4-E
Q303	4-E
Q304	3-E
Q305	3-C
Q307	3-D
Q308	3-D
Q312	3-C
Q315	3-E
Q316	4-E
Q317	4-E
Q319	3-D
Q324	3-E
Q326	3-D
Q327	3-E
Q328	4-F
Q350	3-D
Q401	3-F
Q402	4-F
Q403	2-F
Q404	3-E
Q405	3-F
Q408	2-F
Q415	1-F
Q416	1-F
Q4301	5-B
Q4302	4-D
Q4303	4-E
Q4305	5-F
Q4306	4-F
Q4307	5-E
Q4308	4-F
Q4310	5-E
Q4313	5-E
Q4320	4-E
Q4321	4-E
Q501	5-C
Q502	4-C
Q503	4-B
Q504	4-C
Q505	4-C
Q601	1-A
Q602	1-A
Q607	1-D
Q608	1-D
Q901	5-B



LOCATION	COORDINATES
CN701	E
CN702	E
DT701	C
JA701	G
JA702	G
LD701	G
Q701	F
RM701	F
SW701	B
SW710	B
SW711	A
SW712	B
SW713	A
SW714	A
SW715	G
SW716	G
W751	C



LOCATION	COORDINATES
CN701	E
CN702	E
DT701	C
JA701	G
JA702	G
LD701	G
Q701	G
RM701	E
SW701	B
SW710	B
SW713	A
SW714	A
SW715	G
SW716	F
VR701	A
W751	C

10. Schematic Diagrams

Page

◆ Block Identification of Main PCB ---------- 10-2

10-1 Total Wiring Diagram ---------- 10-3

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10-4 System Control ---------- 10-6

10-5 Servo ---------- 10-8

10-6 Video ---------- 10-10

10-7 Audio ---------- 10-12

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10-9 I/O (1 Scart) ---------- 10-16

10-10 I/O (2 Scart) ---------- 10-17

10-11 Tuner ---------- 10-18

10-12 V.P.S (OPTION) ---------- 10-19

10-13 P.D.C (OPTION) ---------- 10-19

10-14 Remote Control ---------- 10-20

Note

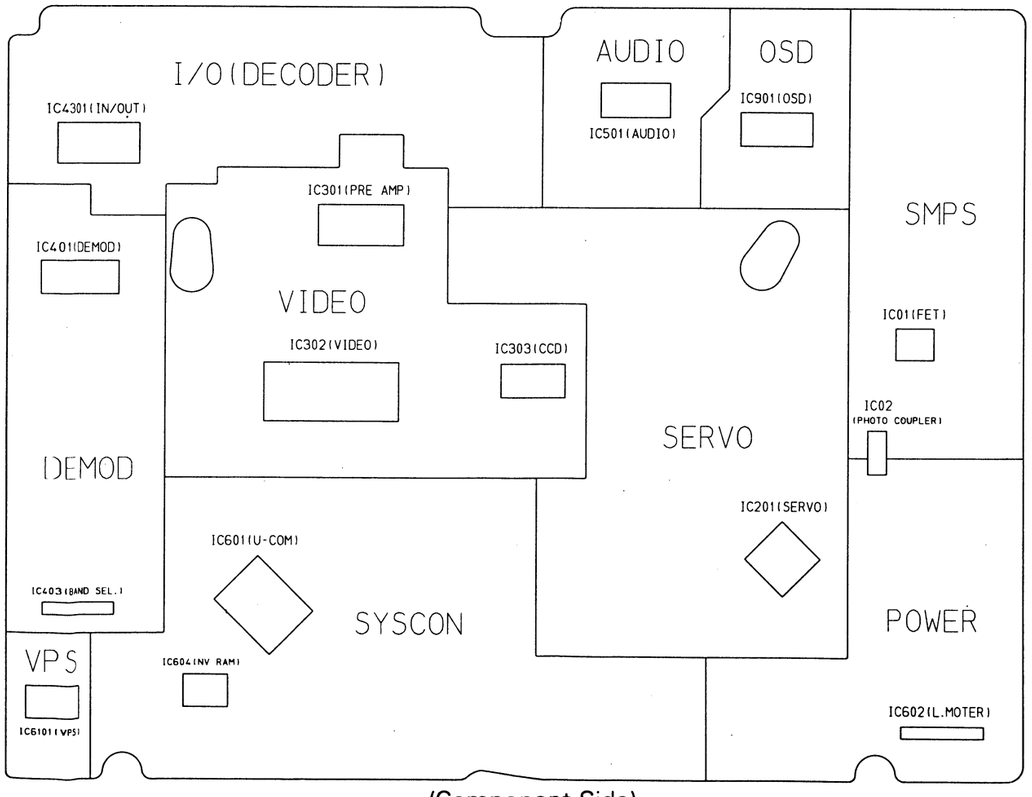
For schematic Diagram
- Resistors are in ohms, 1/8W unless otherwise noted.
- Circled numbers refer to waveforms.

Special note :
Most semiconductor devices are electrostatically sensitive and therefore require the special handling techniques described under the "electrostatically sensitive (ES) devices" section of this service manual.

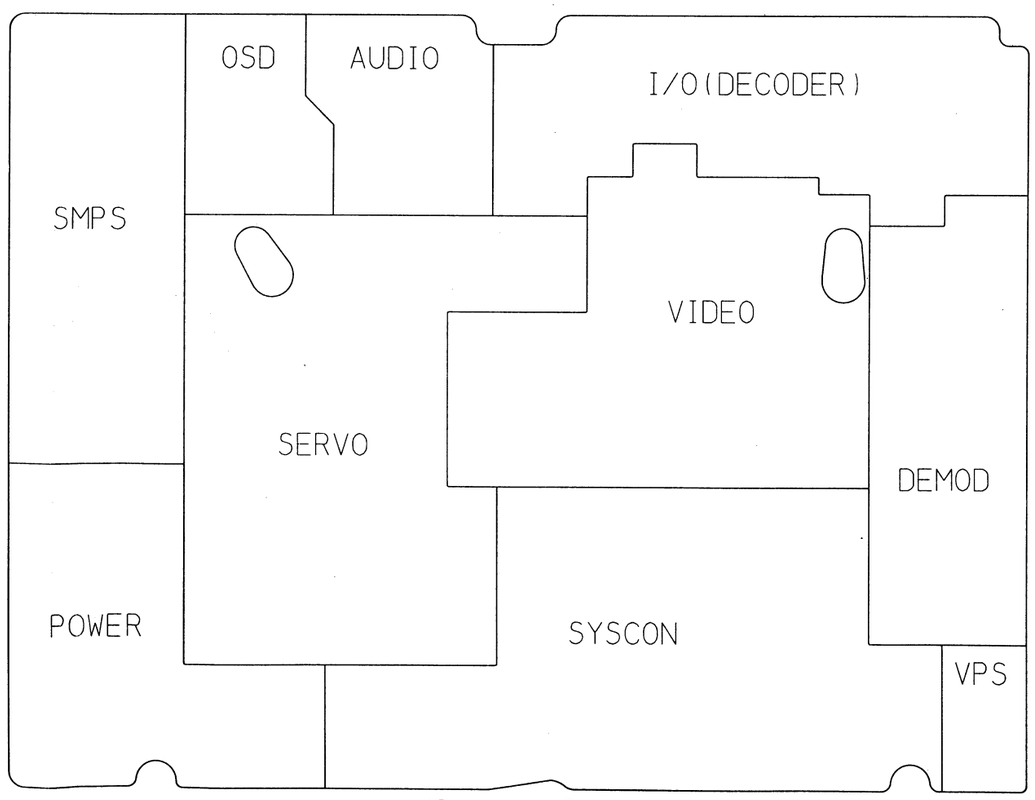
Note :
Do not use the part number shown on this drawing for ordering. The correct part number is shown in the parts list (may be slightly different or amended since this drawing was prepared).

Important safety notices :
Components identified with the mark ⚠ have the special characteristics for safety. When replacing any of these components. Use only the same type.

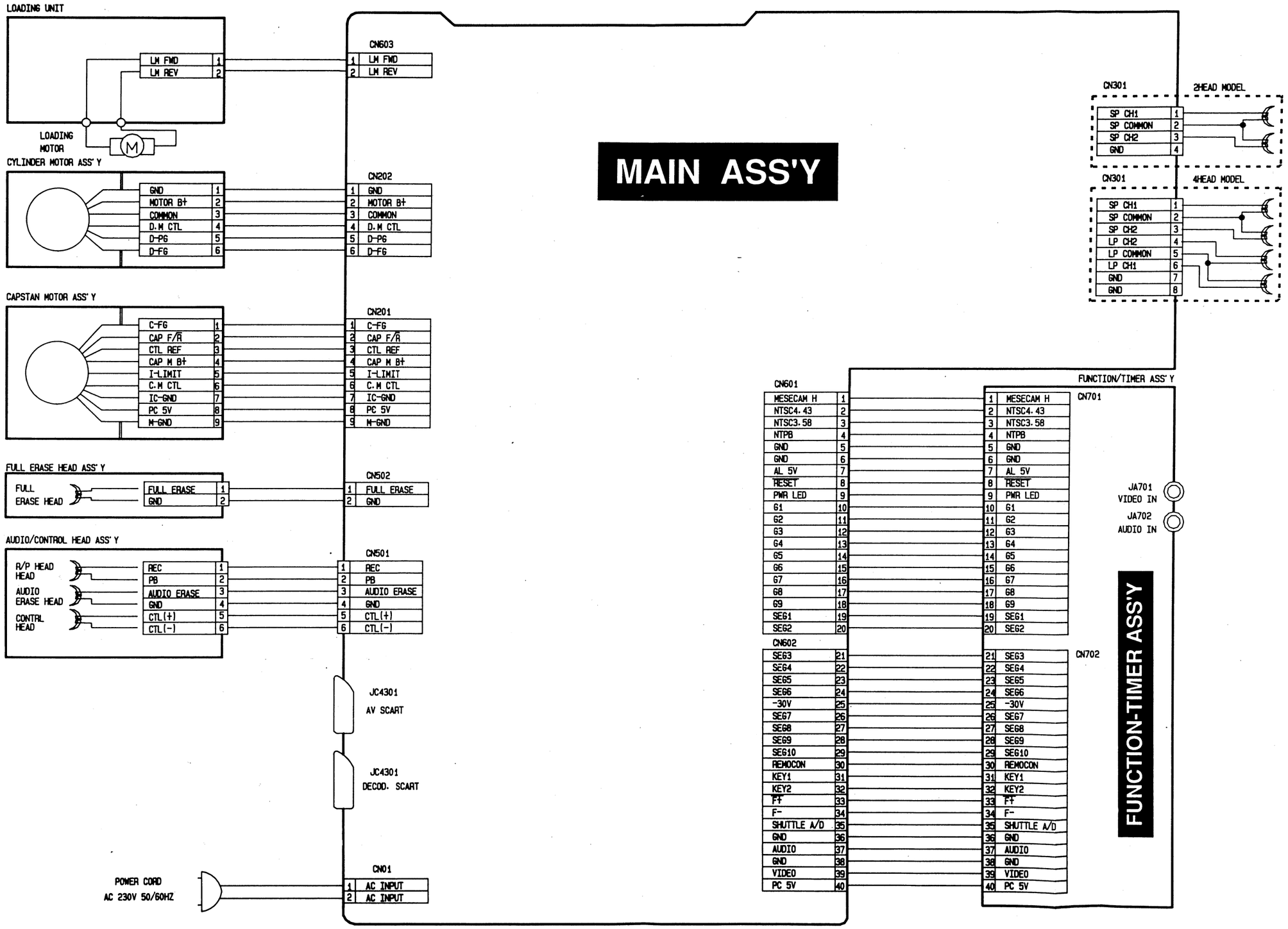
◆ Block Identification of Main PCB

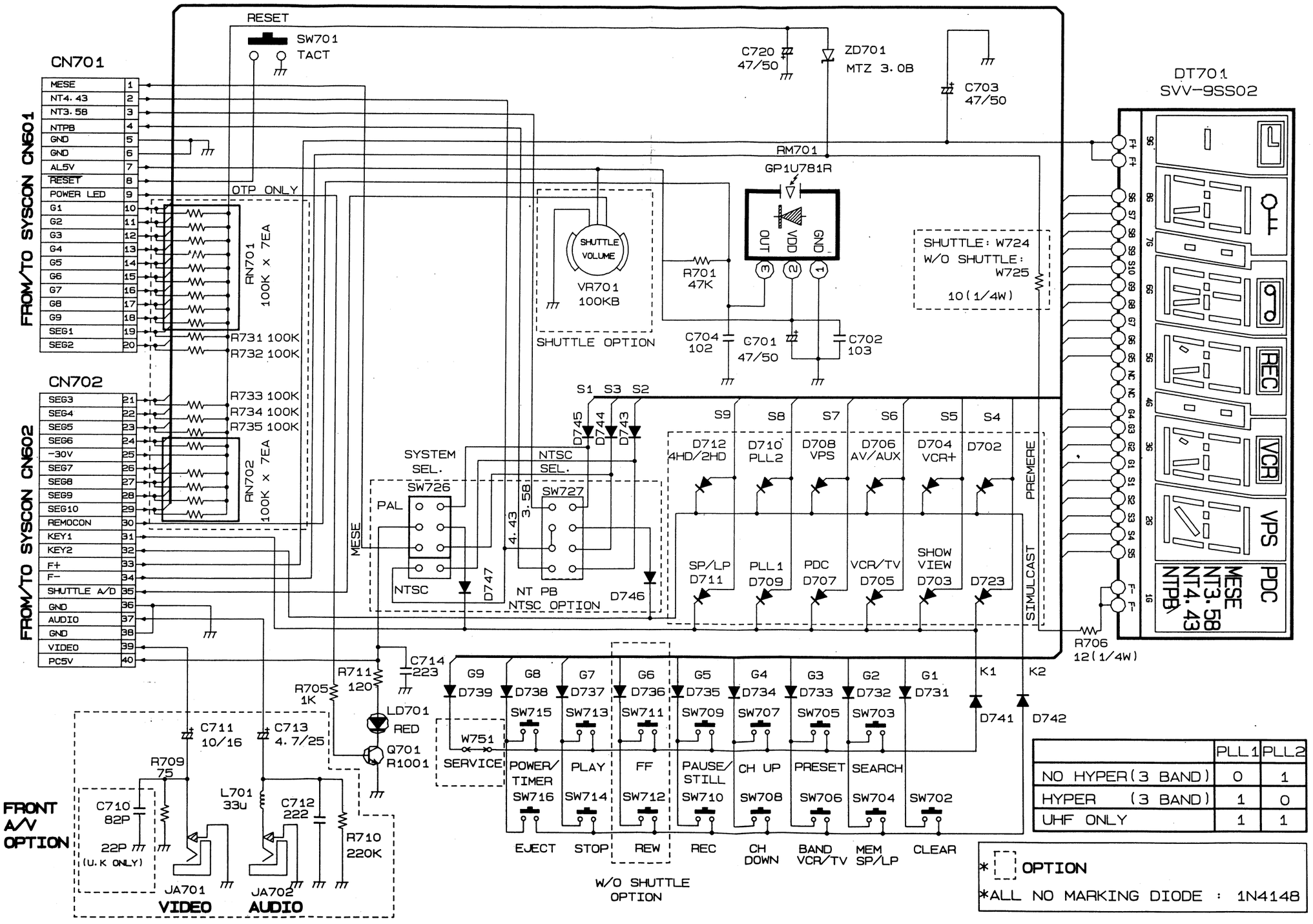


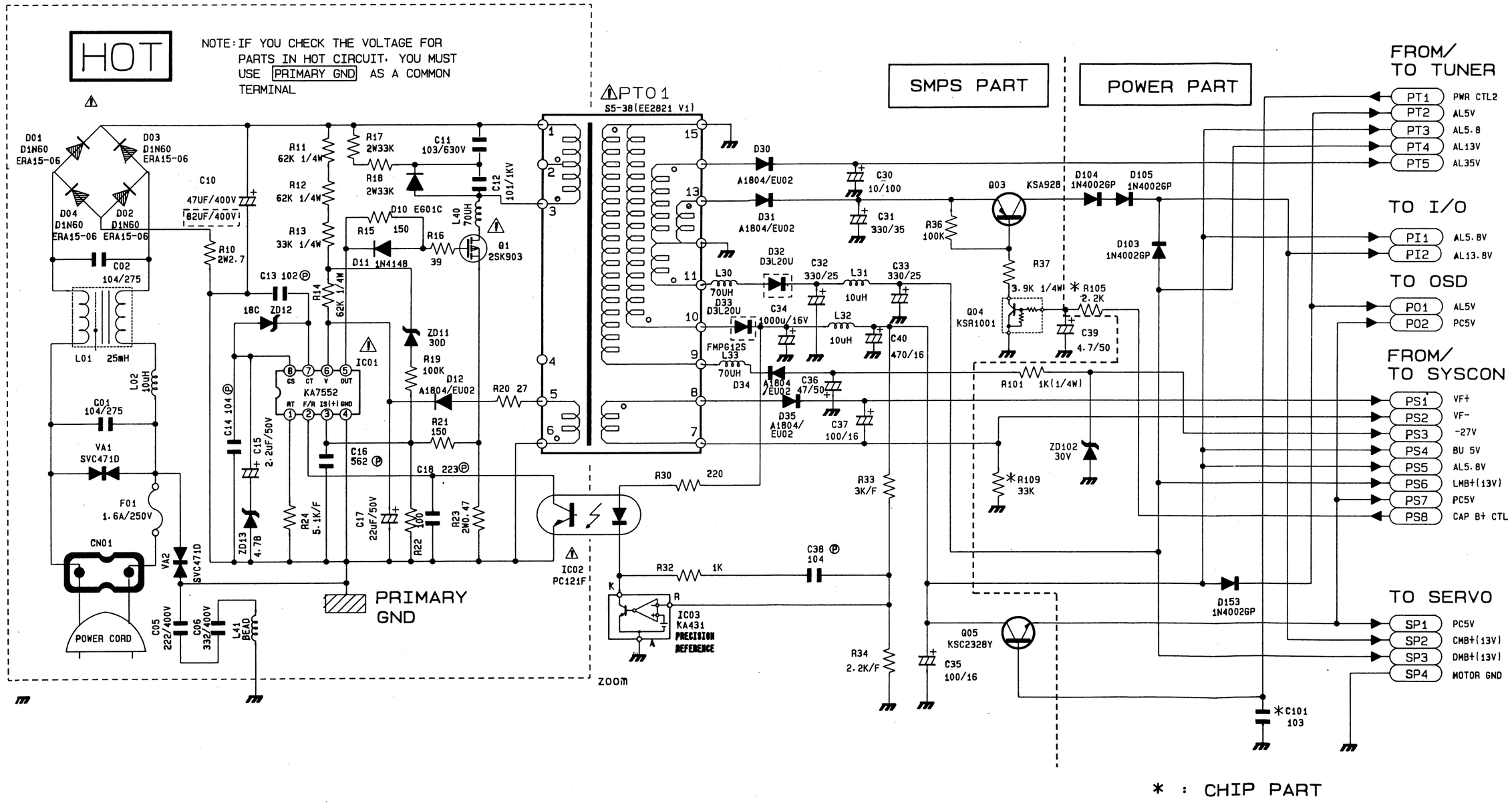
(Component Side)

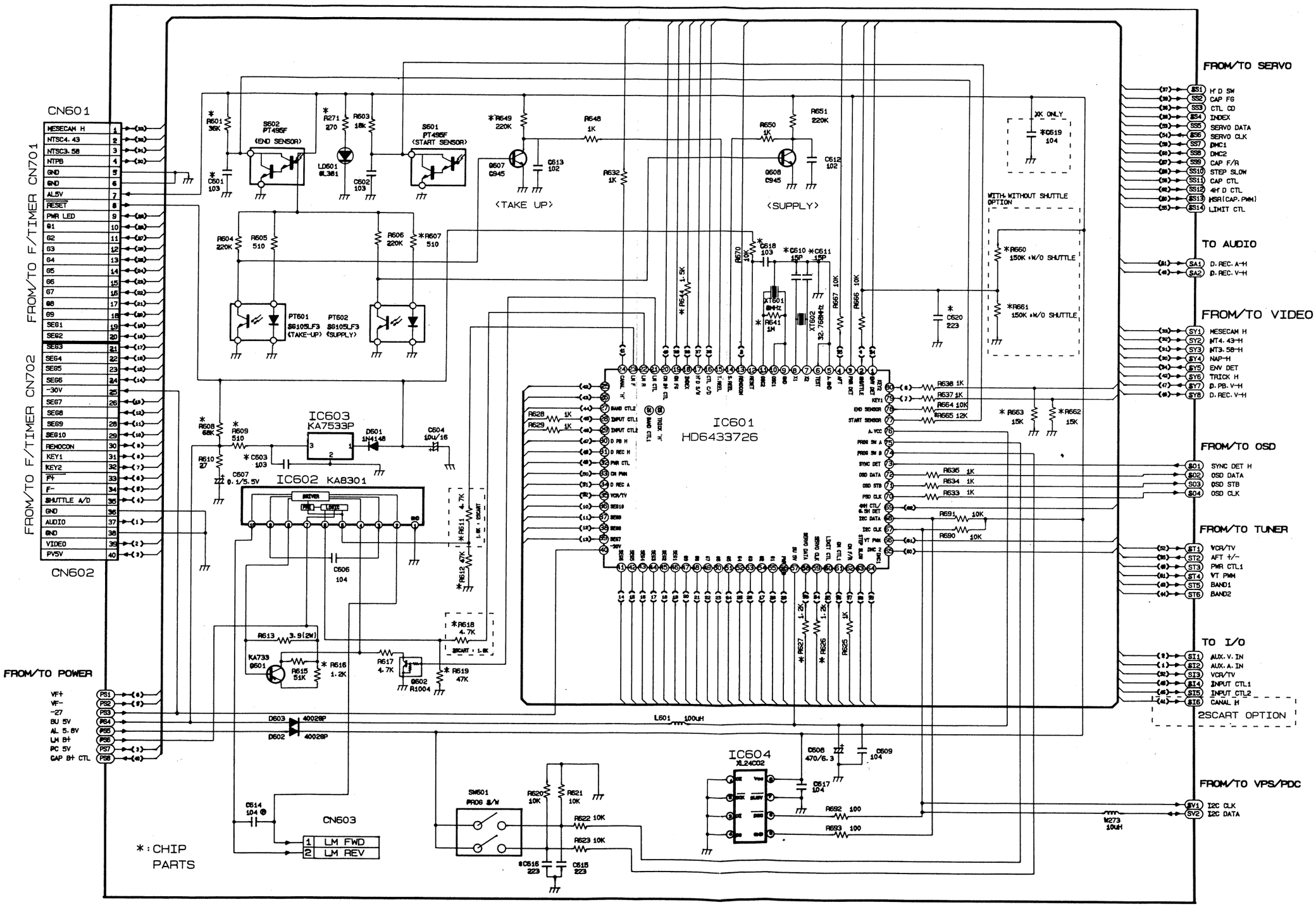


(Conductor Side)


LOADING UNIT
LM FWD 1
LM REV 2
LOADING MOTOR
M
CYLINDER MOTOR ASS'Y
GND 1
MOTOR B+ 2
COMMON 3
D.M CTL 4
D-PG 5
D-FG 6
CAPSTAN MOTOR ASS'Y
C-FG 1
CAP F/R 2
CTL REF 3
CAP M B+ 4
I-LIMIT 5
C.M CTL 6
IC-GND 7
PC 5V 8
M-GND 9
FULL ERASE HEAD ASS'Y
FULL ERASE HEAD
FULL ERASE 1
GND 2
AUDIO/CONTROL HEAD ASS'Y
R/P HEAD HEAD
AUDIO ERASE HEAD
CONTRL HEAD
REC 1
PB 2
AUDIO ERASE 3
GND 4
CTL(+) 5
CTL(-) 6
JC4301
AV SCART
JC4301
DECOD. SCART
POWER CORD
AC 230V 50/60HZ
CN603
1 LM FWD
2 LM REV
CN202
1 GND
2 MOTOR B+
3 COMMON
4 D.M CTL
5 D-PG
6 D-FG
CN201
1 C-FG
2 CAP F/R
3 CTL REF
4 CAP M B+
5 I-LIMIT
6 C.M CTL
7 IC-GND
8 PC 5V
9 M-GND
CN502
1 FULL ERASE
2 GND
CN501
1 REC
2 PB
3 AUDIO ERASE
4 GND
5 CTL(+)
6 CTL(-)
CN01
1 AC INPUT
2 AC INPUT
MAIN ASS'Y
CN601
MESECAM H 1
NTSC4.43 2
NTSC3.58 3
NTPB 4
GND 5
GND 6
AL 5V 7
RESET 8
PWR LED 9
G1 10
G2 11
G3 12
G4 13
G5 14
G6 15
G7 16
G8 17
G9 18
SEG1 19
SEG2 20
CN602
SEG3 21
SEG4 22
SEG5 23
SEG6 24
-30V 25
SEG7 26
SEG8 27
SEG9 28
SEG10 29
REMOCON 30
KEY1 31
KEY2 32
FF 33
F- 34
SHUTTLE A/D 35
GND 36
AUDIO 37
GND 38
VIDEO 39
PC 5V 40
CN301 2HEAD MODEL
SP CH1 1
SP COMMON 2
SP CH2 3
GND 4
CN301 4HEAD MODEL
SP CH1 1
SP COMMON 2
SP CH2 3
LP CH2 4
LP COMMON 5
LP CH1 6
GND 7
GND 8
FUNCTION/TIMER ASS'Y
CN701
1 MESECAM H
2 NTSC4.43
3 NTSC3.58
4 NTPB
5 GND
6 GND
7 AL 5V
8 RESET
9 PWR LED
10 G1
11 G2
12 G3
13 G4
14 G5
15 G6
16 G7
17 G8
18 G9
19 SEG1
20 SEG2
CN702
21 SEG3
22 SEG4
23 SEG5
24 SEG6
25 -30V
26 SEG7
27 SEG8
28 SEG9
29 SEG10
30 REMOCON
31 KEY1
32 KEY2
33 FF
34 F-
35 SHUTTLE A/D
36 GND
37 AUDIO
38 GND
39 VIDEO
40 PC 5V
JA701 VIDEO IN
JA702 AUDIO IN
FUNCTION-TIMER ASS'Y


RESET
SW701
TACT
CN701
FROM/TO SYSCON CN601
MESE 1
NT4.43 2
NT3.58 3
NTPB 4
GND 5
GND 6
AL5V 7
RESET 8
POWER LED 9
G1 10
G2 11
G3 12
G4 13
G5 14
G6 15
G7 16
G8 17
G9 18
SEG1 19
SEG2 20
OTP ONLY
RN701
100K x 7EA
R731 100K
R732 100K
CN702
FROM/TO SYSCON CN602
SEG3 21
SEG4 22
SEG5 23
SEG6 24
-30V 25
SEG7 26
SEG8 27
SEG9 28
SEG10 29
REMOCON 30
KEY1 31
KEY2 32
F+ 33
F- 34
SHUTTLE A/D 35
GND 36
AUDIO 37
GND 38
VIDEO 39
PC5V 40
R733 100K
R734 100K
R735 100K
RN702
100K x 7EA
MESE
C720
47/50
ZD701
MTZ 3.0B
C703
47/50
DT701
SVV-9SS02
RM701
GP1U781R
OUT
VDD
GND
SHUTTLE VOLUME
VR701
100KB
SHUTTLE OPTION
R701
47K
SHUTTLE: W724
W/O SHUTTLE:
W725
10(1/4W)
C704
102
C701
47/50
C702
103
S1 S3 S2
D745
D744
D743
SYSTEM
SEL.
NTSC
SEL.
SW726
PAL
NTSC
SW727
4.43
3.58
D747
NT PB
NTSC OPTION
D746
S9 S8 S7 S6 S5 S4
D712 4HD/2HD
D710 PLL2
D708 VPS
D706 AV/AUX
D704 VCR+
D702
SP/LP D711
PLL1 D709
PDC D707
VCR/TV D705
SHOW VIEW D703
D723
PREMERE
SIMULCAST
R706
12(1/4W)
R711
120
C714
223
R705
1K
LD701
RED
Q701
R1001
G9 G8 G7 G6 G5 G4 G3 G2 G1
D739 D738 D737 D736 D735 D734 D733 D732 D731
K1 K2
D741 D742
W751
SERVICE
SW715 SW713 SW711 SW709 SW707 SW705 SW703
SW716 SW714 SW712 SW710 SW708 SW706 SW704 SW702
POWER/ TIMER
PLAY
FF
PAUSE/ STILL
CH UP
PRESET
SEARCH
EJECT
STOP
REW
REC
CH DOWN
BAND VCR/TV
MEM SP/LP
CLEAR
W/O SHUTTLE OPTION
C711
10/16
C713
4.7/25
R709
75
C710
82P
22P
(U.K ONLY)
L701
33u
C712
222
R710
220K
JA701
JA702
VIDEO
AUDIO
FRONT A/V OPTION
PLL1 PLL2
NO HYPER(3 BAND) 0 1
HYPER (3 BAND) 1 0
UHF ONLY 1 1
* OPTION
*ALL NO MARKING DIODE : 1N4148

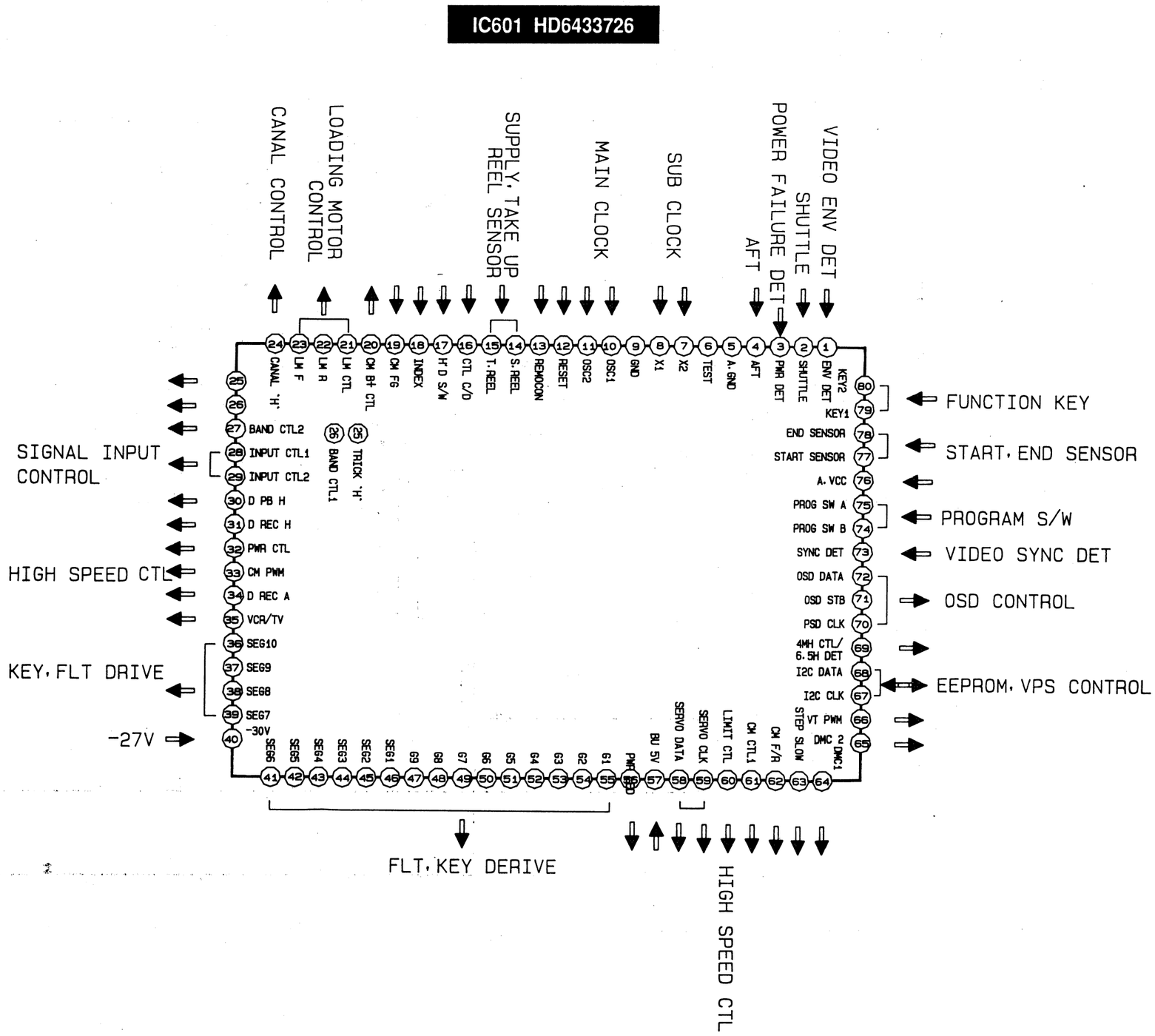

HOT
NOTE: IF YOU CHECK THE VOLTAGE FOR PARTS IN HOT CIRCUIT, YOU MUST USE PRIMARY GND AS A COMMON TERMINAL
PRIMARY GND
SMPS PART
POWER PART
PTO1
S5-38(EE2821 V1)
FROM/ TO TUNER
PT1 PWR CTL2
PT2 AL5V
PT3 AL5.8
PT4 AL13V
PT5 AL35V
TO I/O
PI1 AL5.8V
PI2 AL13.8V
TO OSD
PO1 AL5V
PO2 PC5V
FROM/ TO SYSCON
PS1 VF+
PS2 VF-
PS3 -27V
PS4 BU 5V
PS5 AL5.8V
PS6 LMB+(13V)
PS7 PC5V
PS8 CAP B+ CTL
TO SERVO
SP1 PC5V
SP2 CMB+(13V)
SP3 DMB+(13V)
SP4 MOTOR GND
KA7552
IC01
PC121F
IC02
KA431 PRECISION REFERENCE
IC03
KSA928
KSR1001
KSC2328Y
POWER CORD
ZOOM
* : CHIP PART


CN601
FROM/TO F/TIMER CN701
MESECAM H
NTSC4.43
NTSC3.58
NTPB
GND
GND
AL5V
RESET
PWR LED
G1
G2
G3
G4
G5
G6
G7
G8
G9
SEG1
SEG2
SEG3
SEG4
SEG5
SEG6
-30V
SEG7
SEG8
SEG9
SEG10
REMOCON
KEY1
KEY2
FF
F-
SHUTTLE A/D
GND
AUDIO
GND
VIDEO
PV5V
FROM/TO F/TIMER CN702
CN602
S502 PT495F (END SENSOR)
S501 PT495F (START SENSOR)
LD601 BL381
Q607 C945
Q608 C945
(TAKE UP)
(SUPPLY)
PT601 BG105LF3 (TAKE-UP)
PT602 BG105LF3 (SUPPLY)
IC603 KA7533P
IC602 KA8301
IC601 HD6433726
IC604 XL24C02
XT601 8MHz
XT602 32.768KHz
SW501 PROG S/W
CN603
1 LM FWD
2 LM REV
D603 40028P
D602 40028P
L601 100uH
W273 10uH
XK ONLY
WITH, WITHOUT SHUTTLE OPTION
*R660 150K +W/O SHUTTLE
*R661 150K +W/O SHUTTLE
2SCART OPTION
FROM/TO SERVO
HFD SW
CAP FG
CTL CO
INDEX
SERVO DATA
SERVO CLK
DMC1
DMC2
CAP F/R
STEP SLOW
CAP CTL
4HFD CTL
HSR(CAP.PWM)
LIMIT CTL
TO AUDIO
D.REC.A-H
D.REC.V-H
FROM/TO VIDEO
MESECAM H
NT4.43-H
NT3.58-H
NAP-H
ENV DET
TRICK H
D.PB.V-H
D.REC.V-H
FROM/TO OSD
SYNC DET H
OSD DATA
OSD STB
OSD CLK
FROM/TO TUNER
VCR/TV
AFT +/-
PWR CTL1
VT PWM
BAND1
BAND2
TO I/O
AUX.V.IN
AUX.A.IN
VCR/TV
INPUT CTL1
INPUT CTL2
CANAL H
FROM/TO VPS/PDC
I2C CLK
I2C DATA
FROM/TO POWER
VF+
VF-
-27
BU 5V
AL 5.8V
LM B+
PC 5V
CAP B+ CTL
*: CHIP PARTS

MODE / PIN NO	STOP	REC	PLAY
IC601			
1	2.3	0	2.6
2	2.6	2.6	2.6
3	0.2	5.0	5.0
4	5.0	4.6	4.6
5	0	0	0
6	0	0	0
7	1.5	2.4	2.4
8			
9	0	0	0
10	3.8	3.8	3.8
11	4.4	4.4	4.4
12	4.0	5.0	5.0
13	5.0	5.0	5.0
14	4.6	5.0	5.0
15	0	5.0	5.0
16	4.9	5.0	5.0
17	5.0	5.0	5.0
18	5.0	5.0	5.0
19	0	5.0	5.0
20	0	0	0
21	4.8	4.8	4.8
22	4.6	4.8	4.8
23	4.6	4.8	4.8
24	0	0	0
25	0	0	0
26	0	0	0
27	5.0	5.0	5.0
28	5.0	5.0	5.0
29	0	0	0
30	0.2	0.2	5.0
31	0	4.8	0
32	5.0	5.0	5.0
33	4.8	4.8	4.8
34	0	5.0	0
35	5.0	5.0	5.0
36	-27.0	-27.0	-27.0
37	-27.0	-27.0	-27.0
38	-27.0	-27.0	-27.0
39	-27.0	-27.0	-27.0
39	-27.0	-27.0	-27.0
40	-27.0	-27.0	-27.0
41	-27.0	-27.0	-27.0
42	-27.0	-27.0	-27.0
43	-27.0	-27.0	-27.0
44	-27.0	-27.0	-27.0
45	-27.0	-27.0	-27.0

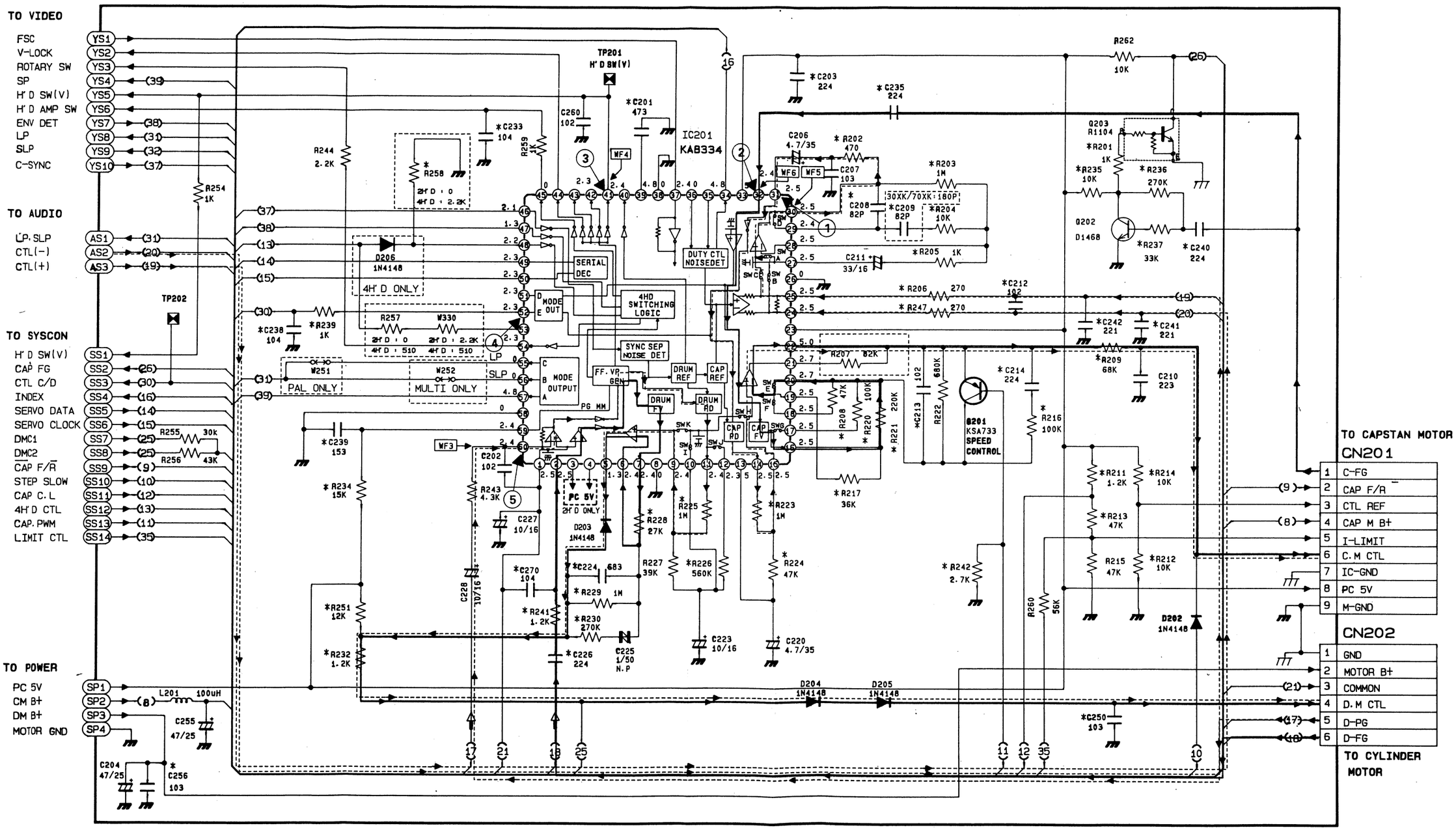
MODE / PIN NO	STOP	REC	PLAY
46	-27.0	-27.0	-27.0
47	-27.0	-27.0	-27.0
48	-27.0	-27.0	-27.0
49	-27.0	-27.0	-27.0
50	-27.0	-27.0	-27.0
51	-27.0	-27.0	-27.0
52	-27.0	-27.0	-27.0
53	-27.0	-27.0	-27.0
54	-27.0	-27.0	-27.0
55	-27.0	-27.0	-27.0
56	5.0	5.0	5.0
57	5.0	5.0	5.0
58	5.0	5.0	5.0
59	5.0	5.0	5.0
60	2.4	2.4	2.4
61	0.2	4.9	4.9
62	4.9	4.9	4.9
63	0	0	0
64	2.2	2.2	2.2
65	2.2	2.2	2.2
66	5.0	5.0	5.0
67	5.0	5.0	5.0
68	5.0	5.0	5.0
69	0	0	0
70	4.9	4.9	4.9
71	4.9	4.9	4.9
72	5.0	5.0	5.0
73	5.0	0	0
74	4.9	0	0
75	4.9	4.9	4.9
76	5.0	5.0	5.0
77	4.8	4.8	4.8
78	5.0	5.0	5.0
79	4.4	4.4	4.4
80	4.4	4.4	4.4

IC601 HD6433726



Red ——— Cylinder Speed Control
- - - - - Cylinder Phase Control

Blue ——— Capstan Speed Control
- - - - - Capstan Phase Control

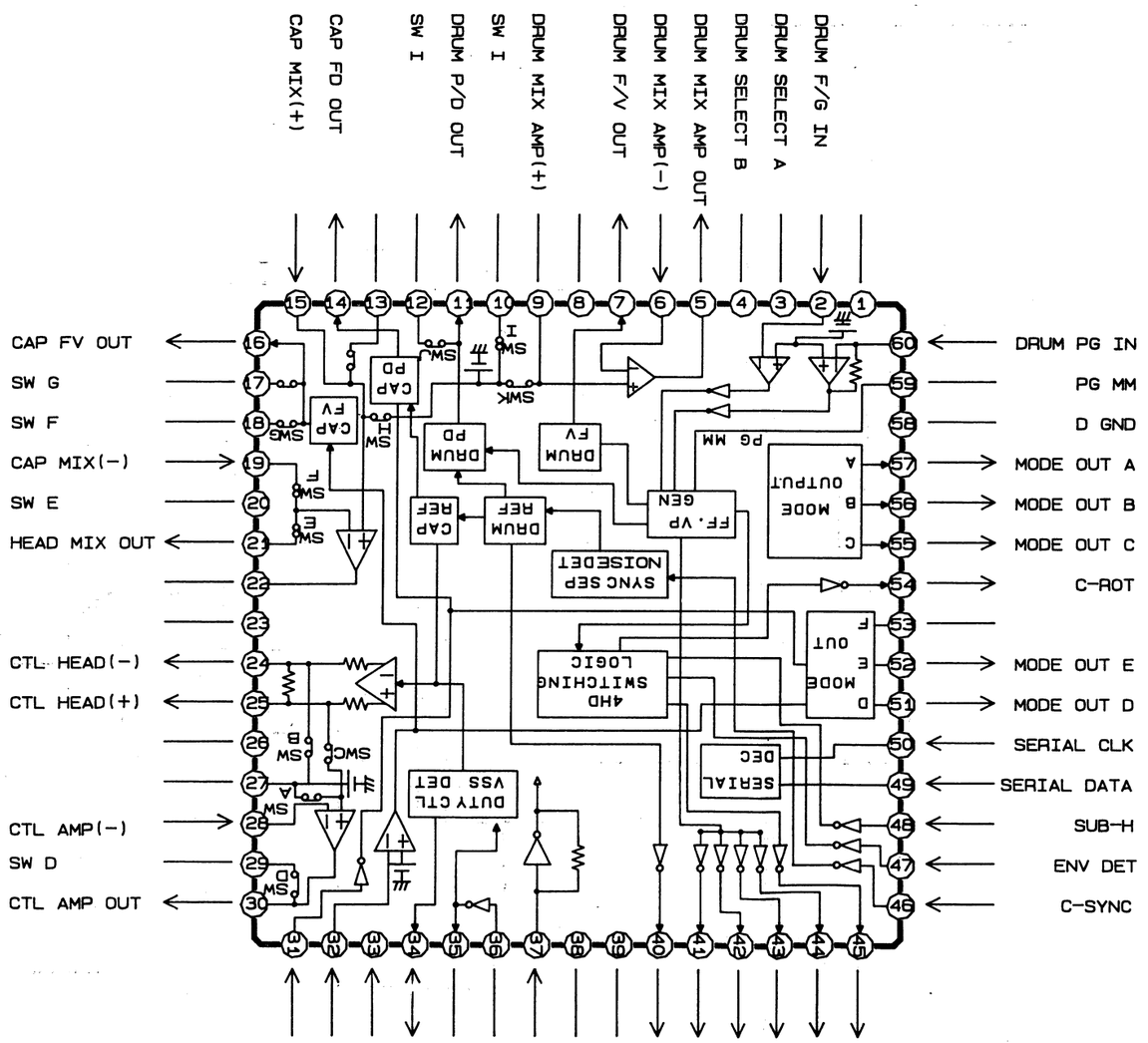


* : CHIP PARTS

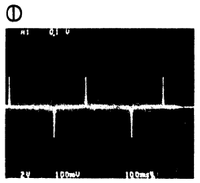
MODE / PIN NO	STOP	REC	PLAY
IC201			
1	2.5	2.4	2.5
2	2.5	2.5	2.5
3	2.5	2.5	2.5
4	2.5	2.5	2.5
5	1.6	1.6	1.6
6	2.5	2.5	2.5
7	2.5	2.5	2.5
8	0	0	0
9	2.5	2.5	2.5
10	1.8	0.2	0
11	2.5	2.5	2.5
12	2.3	2.3	2.3
13	5.0	5.0	5.0
14	5.0	2.5	2.5
15	2.5	2.5	2.5
16	0	0	2.5
17	0.8	2.5	2.5
18	0.1	2.5	2.5
19	1.1	2.5	2.5
20	5.0	2.6	2.6
21	5.0	2.6	2.6
22	5.0	5.0	5.0
23	0	0	0
24	2.5	2.5	2.2
25	2.5	2.8	2.8
26	0	0	0
27	2.5	2.5	2.5
28	2.5	2.5	2.5
29	2.5	2.5	2.5
30	2.5	2.5	2.5
31	2.5	2.5	2.5
32	2.5	2.5	2.5

MODE / PIN NO	STOP	REC	PLAY
33	5.0	5.0	5.0
34	5.0	3.0	2.0
35	5.0	5.0	0
36	0	0	0
37	2.4	2.4	2.4
38	0	0	0
39	4.9	4.9	4.9
40	2.5	2.5	2.5
41	2.4	2.4	2.4
42	2.4	0	2.4
43	2.4	2.4	2.4
44	0	0	0
45	4.9	0	0
46	2.7	2.7	0.7
47	0.8	0.8	0
48	0.9	0.9	0.9
49	0.6	0.6	0.6
50	0.7	0.7	0.7
51	0	2.3	2.3
52	4.9	4.9	1.9
53	0	0	0
54	2.3	2.3	2.3
55	0	0	0
56	0	0	0
57	4.8	0	4.8
58	0	0	0
59	0	0.3	0.3
60	2.4	2.4	2.4

IC201 KA8334

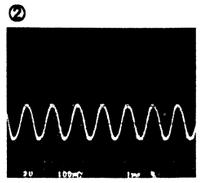


①



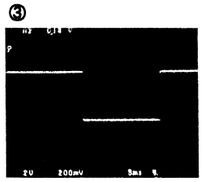
IC201-31
3.2Vp-p
PB

②



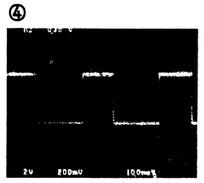
IC201-32
2Vp-p
PB

③



IC201-41
5Vp-p
PB

④

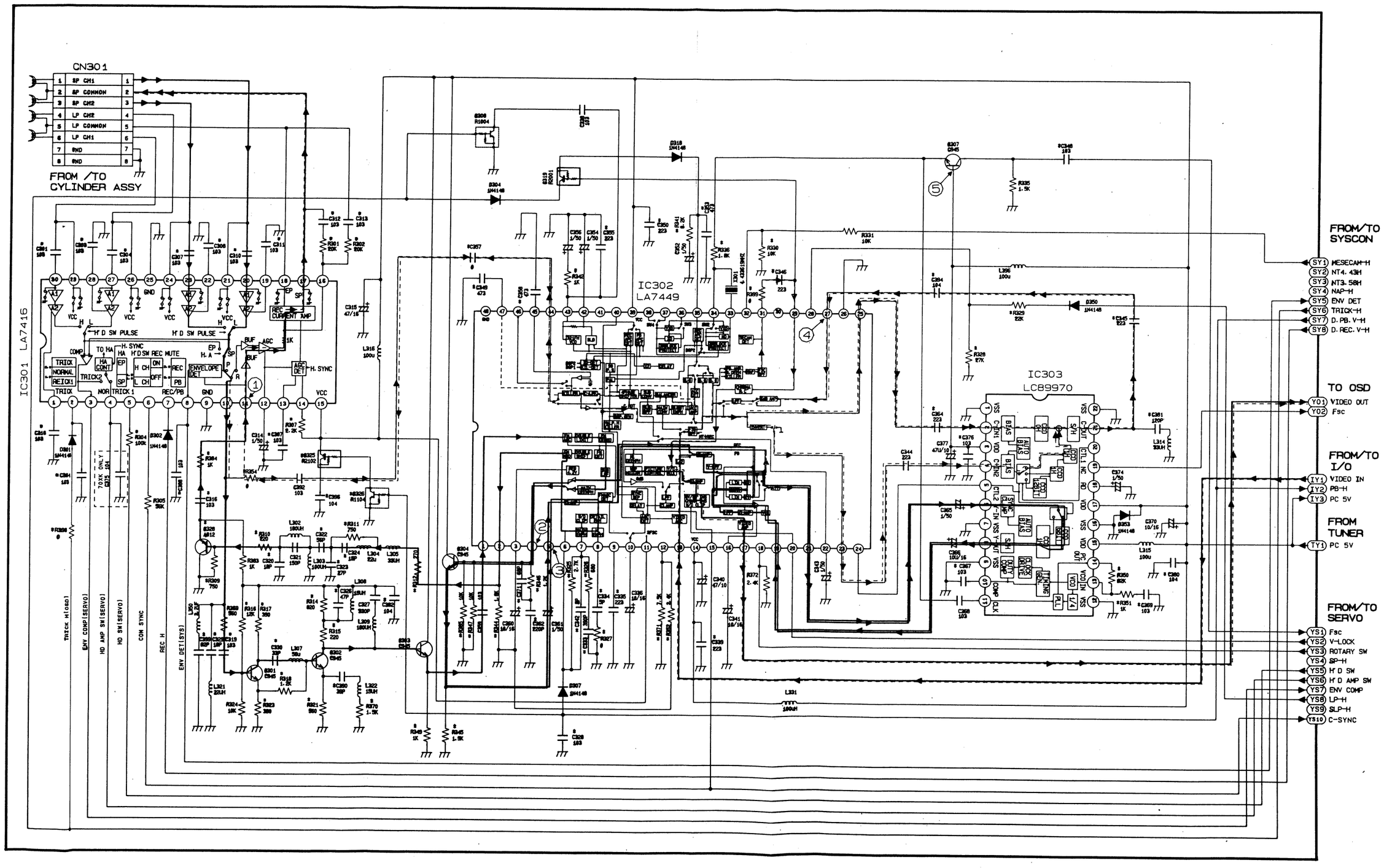


IC201-52
5Vp-p
PB

⑤

IC201-60
420mVp-p
PB

Red ——— PB Y Process
---------- PB C Process
Blue ——— REC Y Process
---------- REC C Process



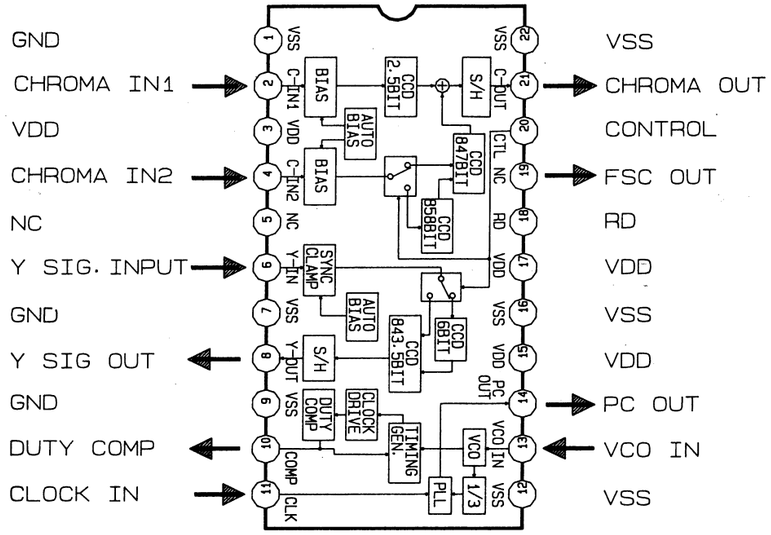
MODE / PIN NO	E/E	PLAY	REC
IC302			
1	5.0	3.6	3.0
2	2.4	3.6	2.5
3	4.2	4.2	4.2
4	2.1	2.6	2.1
5	2.8	3.0	2.8
6	1.8	4.8	2.8
7	2.0	4.3	2.0
8	2.6	2.8	2.6
9	2.5	2.5	2.5
10	1.4	1.5	1.5
11	2.0	2.0	2.1
12	2.9	2.9	2.9
13	2.6	3.1	2.6
14	5.0	5.0	5.0
15	0.2	0.1	0.1
16	3.1	3.1	3.1
17	0.8	0.9	0.9
18	2.5	0	2.5
19	2.0	2.0	2.0
20	0	0	0
21	1.0	1.0	1.0
22	2.2	2.2	2.2
23	2.5	2.1	2.3
24	0	0	0
25	2.5	2.2	2.4
26	0	0	0
27	2.5	2.4	2.5
28	0.8	2.5	0.8
29	1.9	1.8	1.9
30	0	0	0
31	0	2.4	0
32	0	0.4	0.4
33	3.6	3.6	3.6
34	2.5	2.4	2.5
35	0	2.0	2.2
36	0	0	0
37	0	0	0
38	0	0	0
39	5.0	5.0	5.0
40	0.1	0.1	0.1
41	0	0	0
42	2.8	2.8	2.8
43	2.8	2.8	2.8
44	2.3	3.2	2.2
45	2.0	2.0	2.0
46	0	0	0
47	1.8	1.2	1.8
48	0	0	0

MODE / PIN NO	E/E	PLAY	REC
IC301			
1	2.0	2.0	3.6
2	2.0	2.0	2.0
3	0	0	1.2
4	0	0	0
5	0	0	0
6	0.1	0.1	0.1
7	0	0	4.5
8	0.3	2.2	0
9	0	0	0
10	2.2	2.2	3.2
11	0	0	3.2
12	0	0	1.6
13	2.5	2.5	2.5
14	5.0	5.0	4.0
15	5.0	5.0	5.0
16	0	0	1.5
17	0	0	2.3
18	0	0	0
19	2.0	2.0	3.6
20	0.6	0.6	0.1
21	0	0	4.0
22	2.0	2.0	3.6
23	0.6	0.6	0
24	0	0	4.0
25	0	0	0
26	0	0	0
27	0.6	0.6	0.1
28	2.0	2.0	3.6
29	0	0	0
30	0.6	0.6	0.1

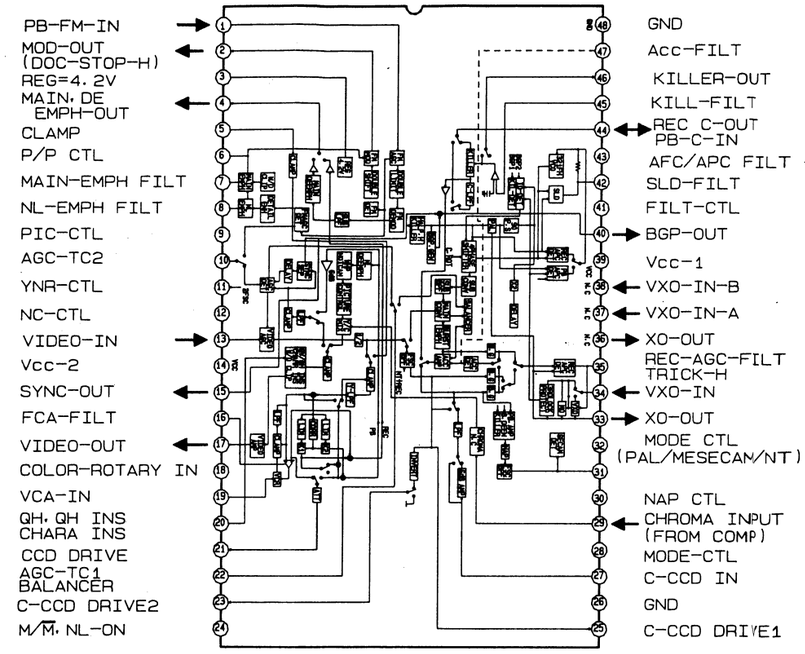
MODE / PIN NO	E/E	PLAY	REC
IC303			
1	0	0	0
2	2.2	2.0	2.2
3	5.0	5.0	5.0
4	2.2	2.0	2.2
5	0	0	0
6	2.2	2.2	2.2
7	0	0	0
8	1.0	1.0	1.0
9	0	0	0
10	0	2.3	2.3
11	1.0	1.0	1.0
12	0	0	0
13	2.0	2.0	2.0
14	2.0	2.0	2.0
15	5.0	5.0	5.0
16	0	0	0
17	5.0	5.0	5.0
18	8.5	8.5	8.5
19	3.2	3.2	3.2
20	0	0	0
21	1.2	1.0	1.2
22	0	0	0

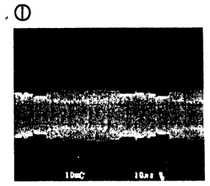
MODE / PIN NO	E/E	PLAY	REC
Q301			
E	1.4	1.4	1.4
C	3.4	3.4	3.4
B	2.1	2.1	2.1
Q302			
E	0.7	0.7	0.7
C	4.6	4.6	4.6
B	1.4	1.4	1.4
Q303			
E	4.0	4.0	4.0
C	5.0	5.0	5.0
B	4.6	4.6	4.6
Q304			
E	1.4	2.0	1.4
C	5.0	5.0	5.0
B	2.1	3.0	2.1
Q315			
E	5.0	5.0	5.0
C	5.0	3.6	3.0
B	0.7	4.3	4.3

IC303 LC89970

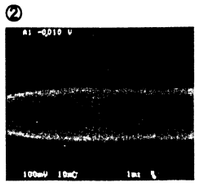


IC302 LA7449

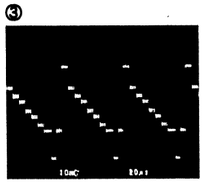


① 

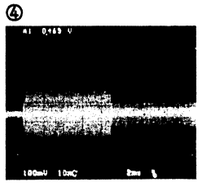
IC301-11
280mVp-p
REC

② 

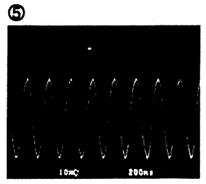
IC302-4
300mVp-p
PLAY

③ 

IC302-5
500mVp-p
REC

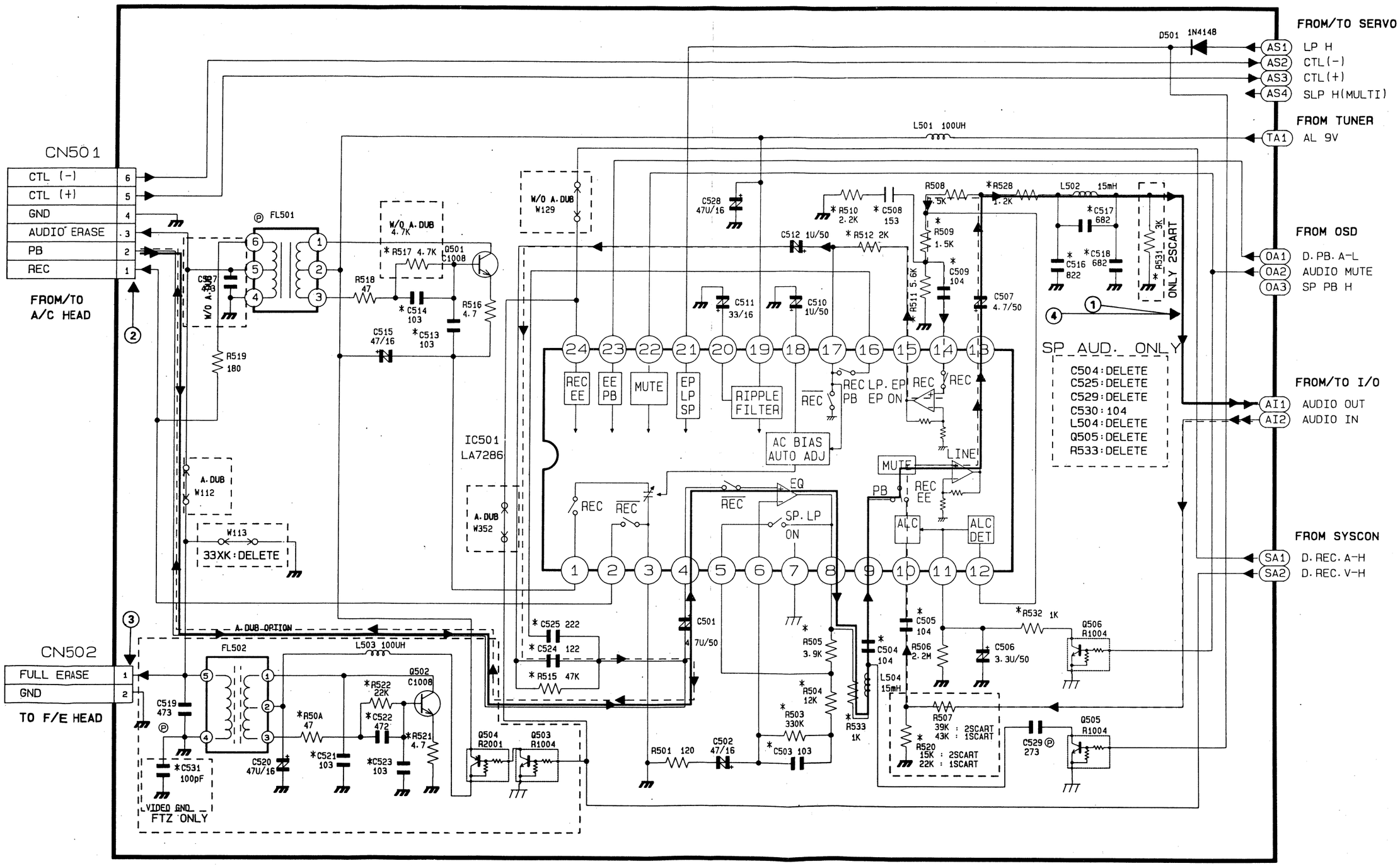
④ 

IC302-27
260mVp-p
PB

⑤ 

Q307-Emitter
420mVp-p
E/E, PB, REC

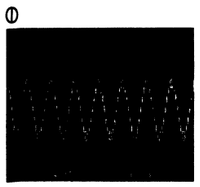
Red ———— PB Process
---------- REC Process



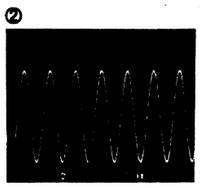
* : CHIP PARTS

MODE / PIN NO	STOP	REC	PLAY
IC501			
1	9.0	4.0	9.0
2	0	0	0
3	0	0	0
4	4.0	4.0	4.0
5	4.0	4.0	4.0
6	4.0	4.0	4.0
7	0	0	0
8	4.0	4.0	4.0
9	4.0	4.0	4.0
10	4.0	4.0	4.0
11	0.5	0.5	0
12	0	0	0
13	4.0	4.0	4.0
14	4.0	4.0	4.0
15	4.0	4.0	4.0
16	0	4.0	0
17	4.0	4.0	4.0
18	0	0.8	0
19	9.0	9.0	9.0
20	9.0	9.0	9.0
21	0	0	0
22	0.8	0.8	0.8
23	4.5	4.5	0.8
24	0	5.0	0

MODE / PIN NO	STOP	REC	PLAY
Q501			
E	9.0	4.0	9.0
B	9.0	2.5	9.0
C	9.0	8.9	9.0
Q502			
E	0	0	0
B	0.3	0	0.3
C	0.3	8.7	0.3
Q503			
E	0	0	0
B	0	4.9	0
C	9.0	0	9.0
Q504			
E	8.9	8.9	8.9
B	8.9	0	8.9
C	0.2	8.8	0.2
Q505			
E	0	0	0
B	0	0	0
C	0	0	0
Q506			
E	0	0	0
B	0.8	0.8	0.8
C	0.5	0.5	0

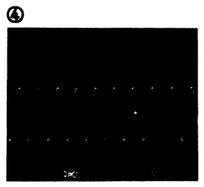


① R531-Audio Out 0.7Vp-p PB



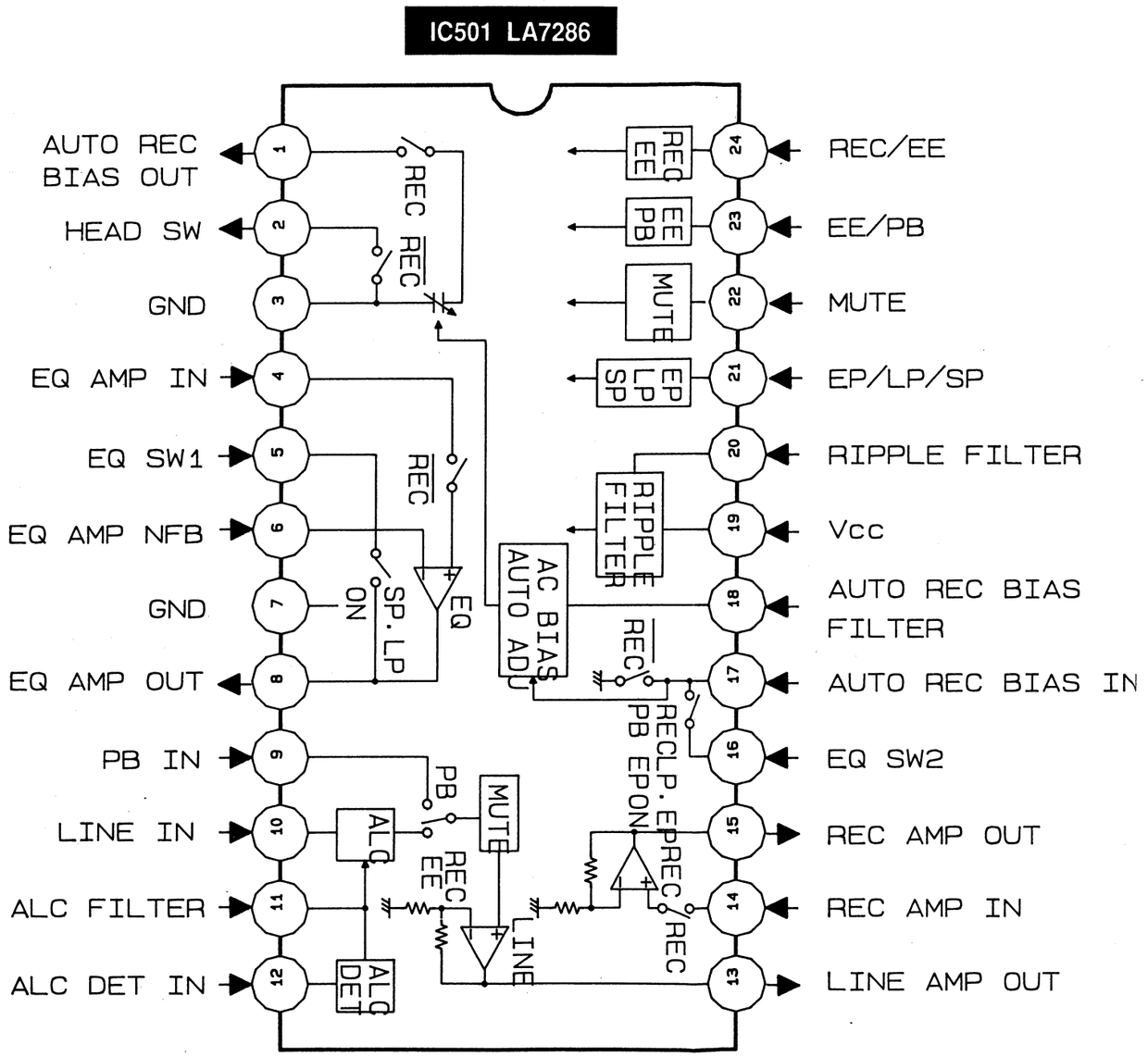
② CN501-1 50Vp-p REC

③ CN502-1 40Vp-p REC

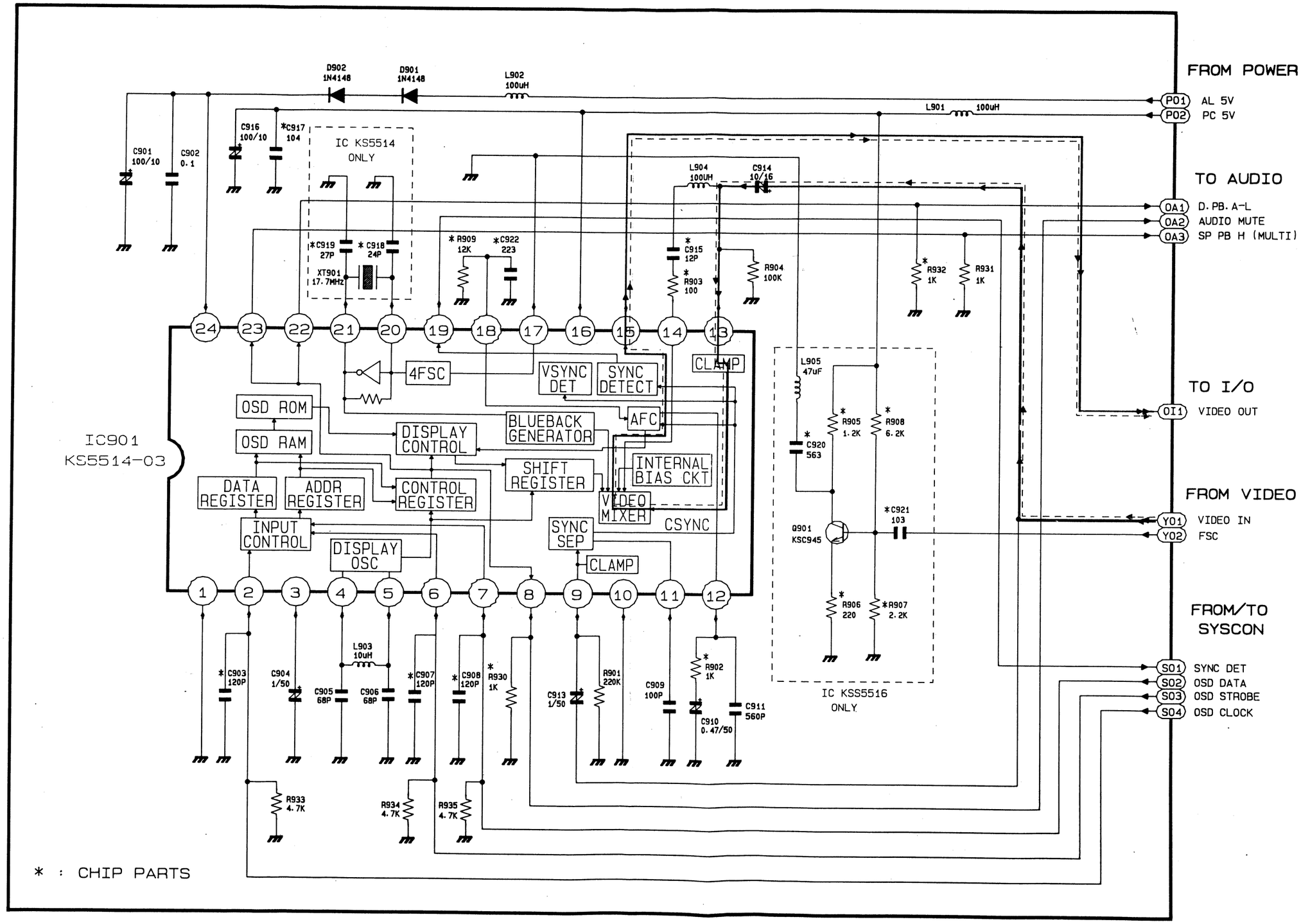


④ R531-Audio Out 1.45Vp-p E/E, REC

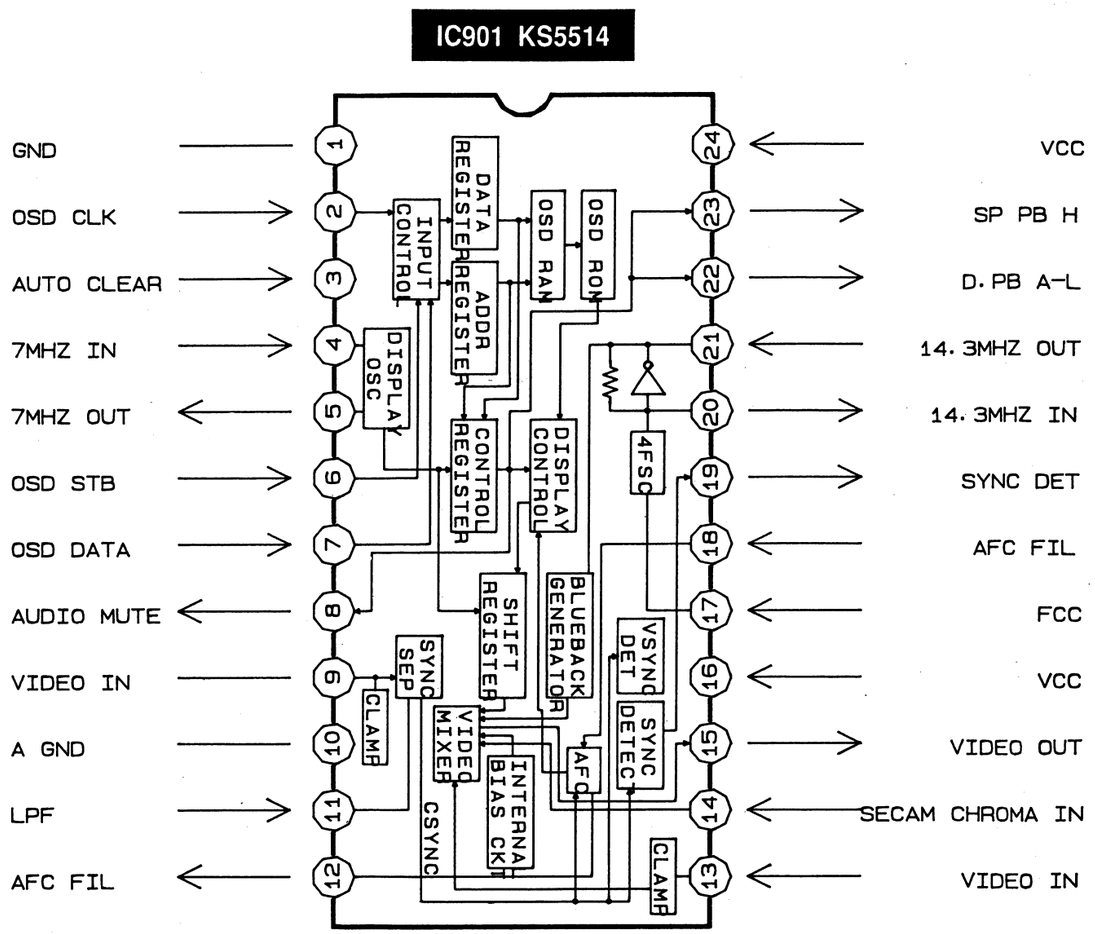
IC501 LA7286

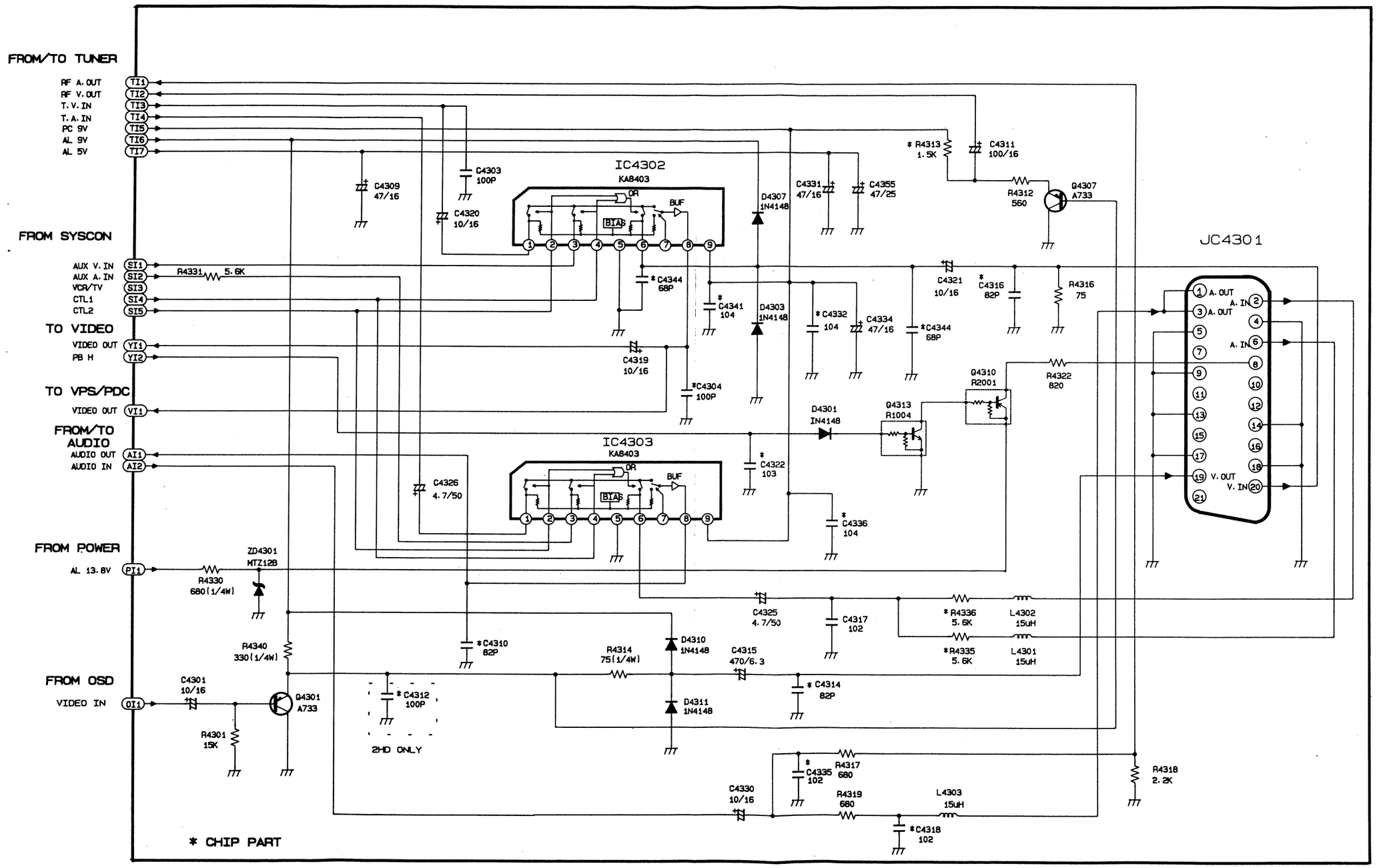


Red — PB Process
---------- REC Process

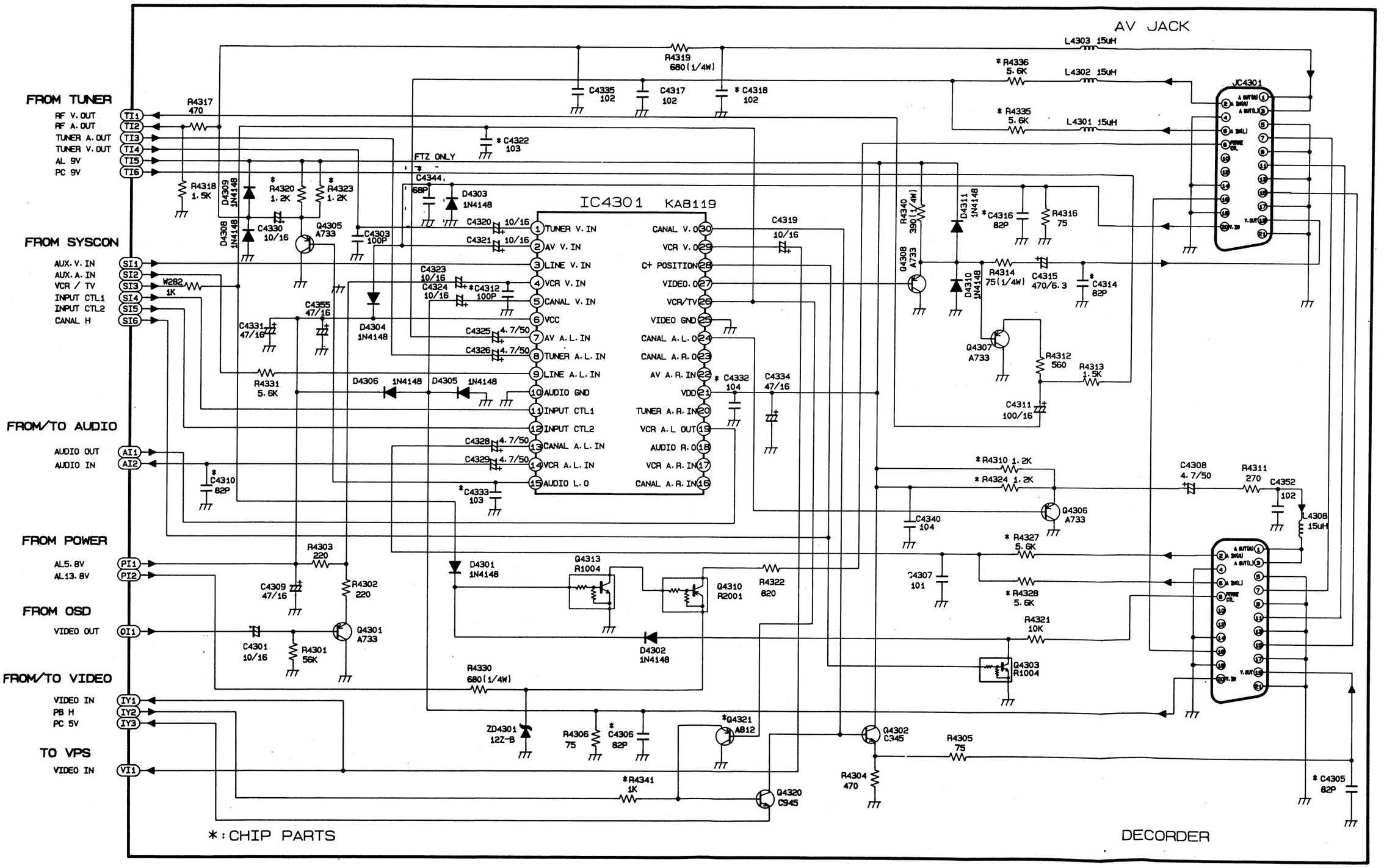


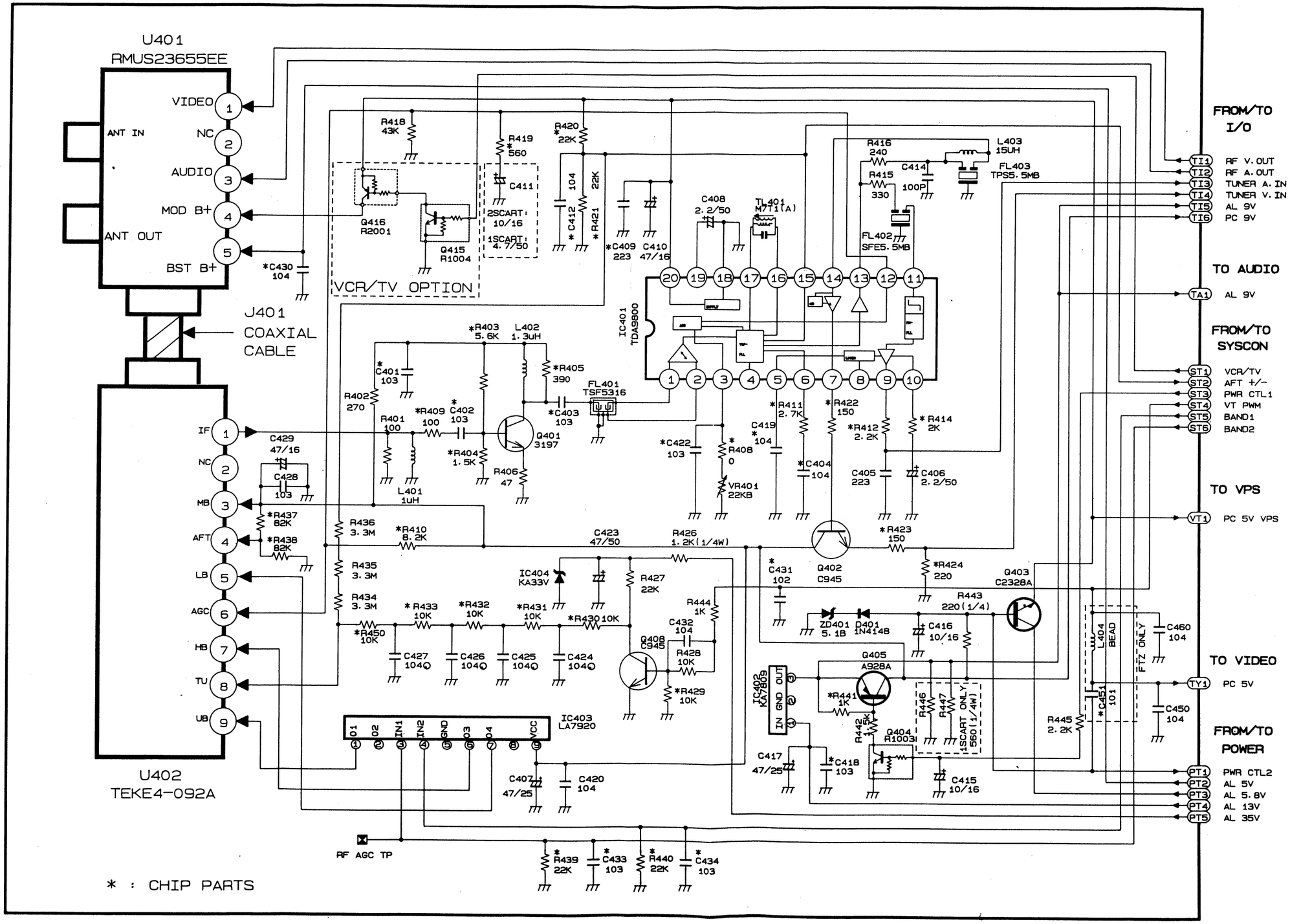
MODE / PIN NO	E-E	BLUE
IC901		
1	0	0
2	0 - 4	0 - 4
3	3.6	3.6
4	1.9	1.9
5	1.5	1.5
6	0 - 4	0 - 4
7	0 - 4	0 - 4
8	0.8	0.8
9	1.6	2.2
10	0	0
11	1.9	2.4
12	2.2	4.6
13	1.6	2.1
14	1.9	2.1
15	3.0	3.0
16	4.9	4.9
17	0	0
18	0.7	0
19	0	4.9
20	1.8	1.8
21	1.8	1.8
22	0.9	0.9
23	3.9	3.9
24	3.6	3.6



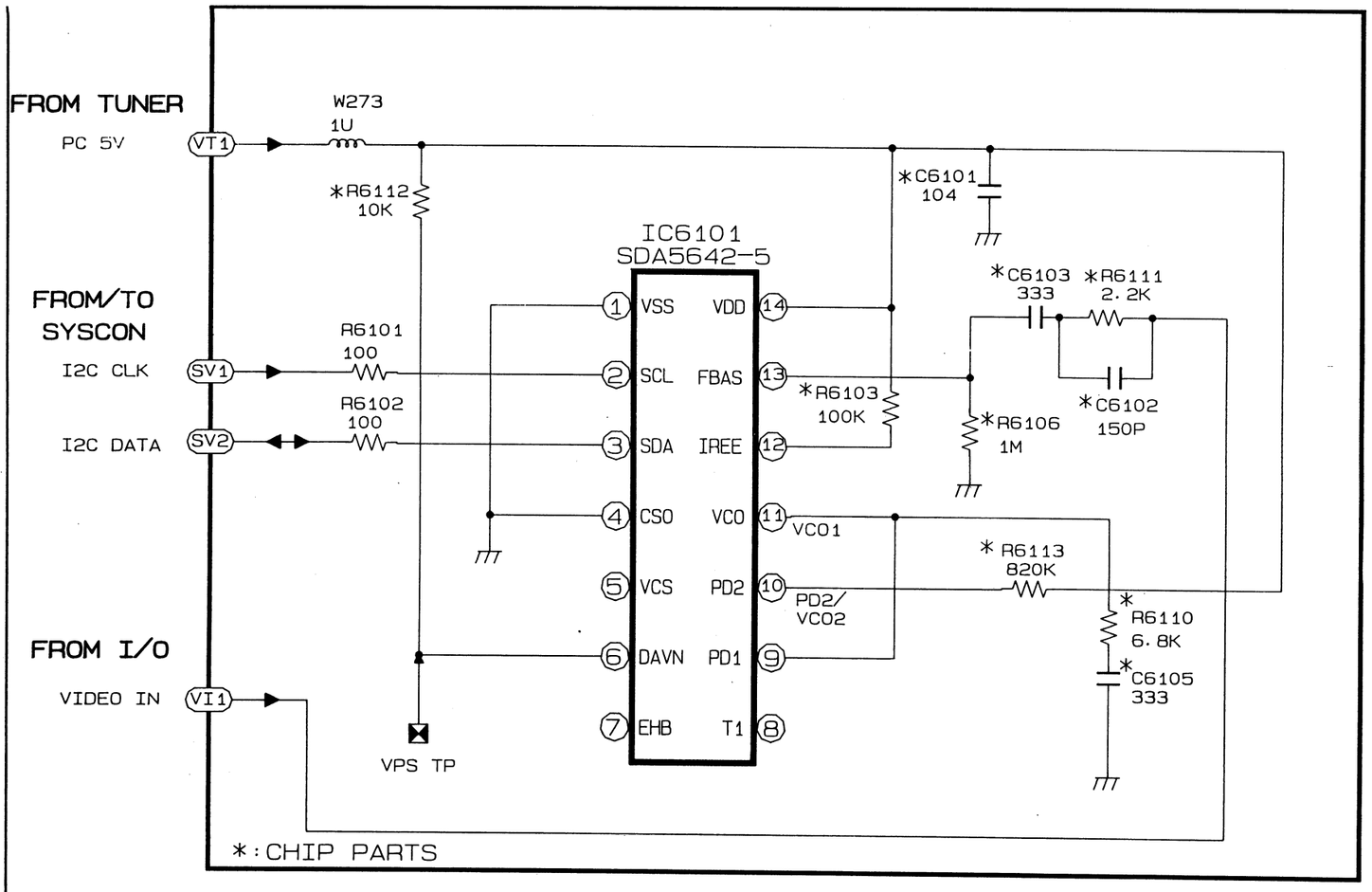


	CTL1	CTL2
A/V	0	0
AUX	0	1
TUNER	1	0

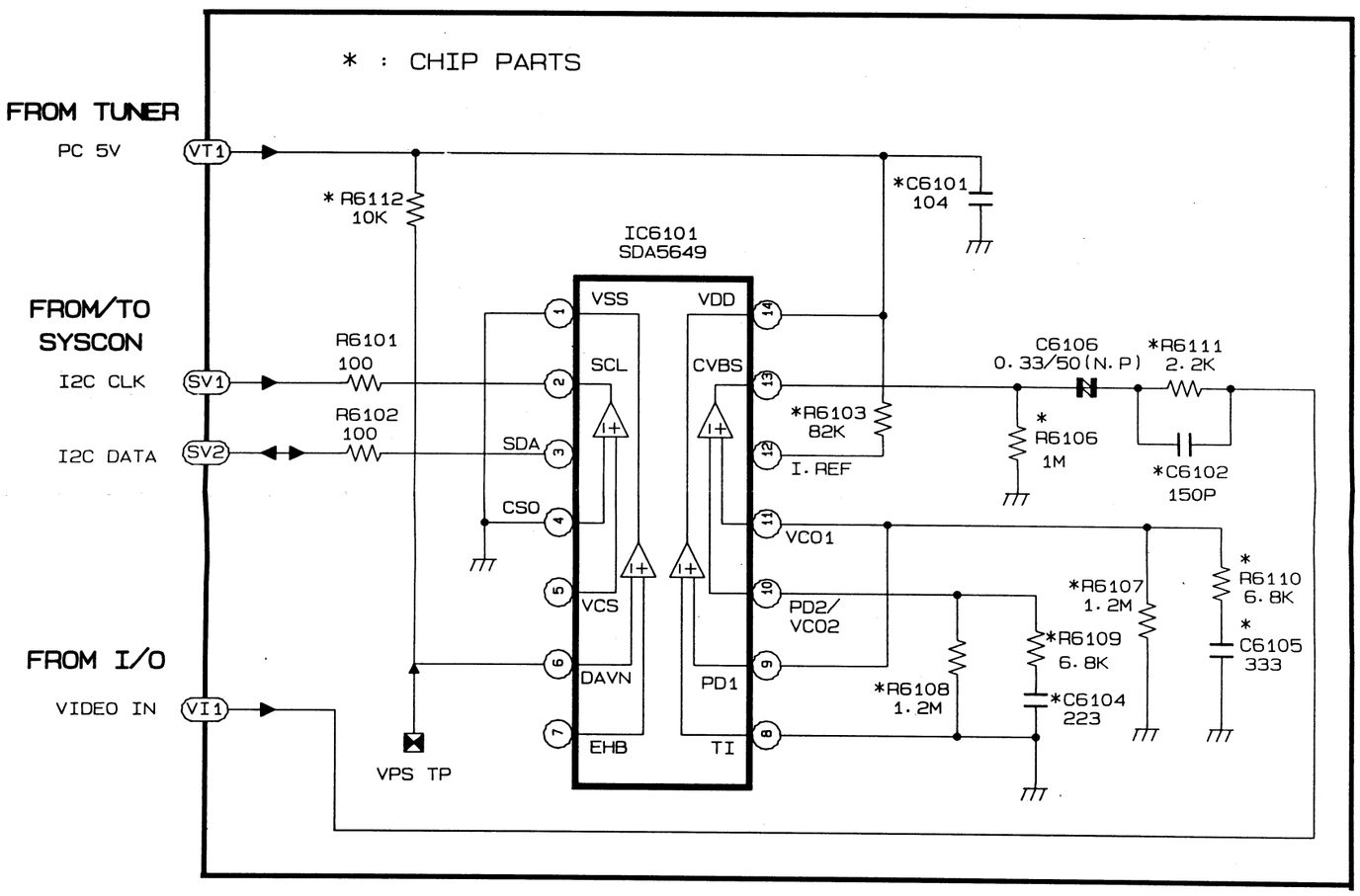

AV JACK
FROM TUNER
RF V. OUT
RF A. OUT
TUNER A. OUT
TUNER V. OUT
AL 9V
PC 9V
FROM SYSCON
AUX. V. IN
AUX. A. IN
VCR / TV
INPUT CTL1
INPUT CTL2
CANAL H
FROM/TO AUDIO
AUDIO OUT
AUDIO IN
FROM POWER
AL5. 8V
AL13. 8V
FROM OSD
VIDEO OUT
FROM/TO VIDEO
VIDEO IN
PB H
PC 5V
TO VPS
VIDEO IN
IC4301 KA8119
TUNER V. IN
AV V. IN
LINE V. IN
VCR V. IN
CANAL V. IN
VCC
AV A. L. IN
TUNER A. L. IN
LINE A. L. IN
AUDIO GND
INPUT CTL1
INPUT CTL2
CANAL A. L. IN
VCR A. L. IN
AUDIO L. O
CANAL V. O
VCR V. O
C+ POSITION
VIDEO. O
VCR/TV
VIDEO GND
CANAL A. L. O
CANAL A. R. O
AV A. R. IN
VDD
TUNER A. R. IN
VCR A. L OUT
AUDIO R. O
VCR A. R. IN
CANAL A. R. IN
FTZ ONLY
JC4301
DECORDER
*: CHIP PARTS

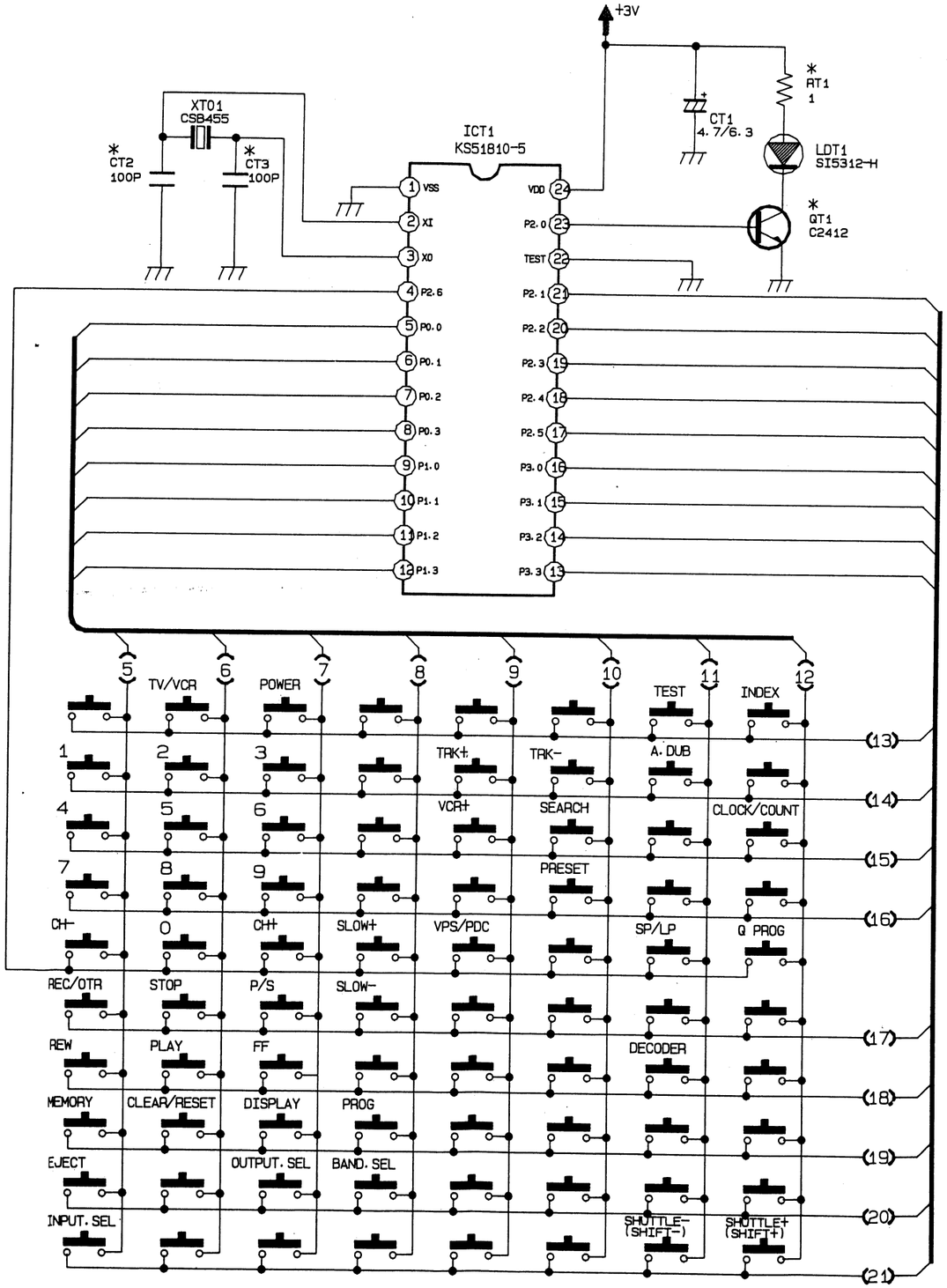

U401
RMUS23655EE
VIDEO
ANT IN
NC
AUDIO
MOD B+
ANT OUT
BST B+
J401
COAXIAL
CABLE
U402
TEKE4-092A
IF
NC
MB
AFT
LB
AGC
HB
TU
UB
VCR/TV OPTION
2SCART: 10/16
1SCART: 4.7/50
IC401
TDA9800
IC403
LA7920
IC402
KA7805
FL401
TSF5316
FL402
SFE5.5MB
FL403
TPS5.5MB
TL401
M7T1(A)
Q401
3197
Q402
C945
Q403
C2328A
Q404
R1003
Q405
A928A
Q408
C945
IC404
KA33V
ZD401
5.1B
D401
1N4148
L401
1uH
L402
1.3uH
L403
15UH
L404
BEAD
FROM/TO
I/O
RF V.OUT
RF A.OUT
TUNER A.IN
TUNER V.IN
AL 9V
PC 9V
TO AUDIO
AL 9V
FROM/TO
SYSCON
VCR/TV
AFT +/-
PWR CTL1
VT PWM
BAND1
BAND2
TO VPS
PC 5V VPS
TO VIDEO
PC 5V
FROM/TO
POWER
PWR CTL2
AL 5V
AL 5.8V
AL 13V
AL 35V
RF AGC TP
* : CHIP PARTS

10-12 V.P.S (OPTION)



10-13 P.D.C (OPTION)




+3V
XT01
CSB455
* CT2
100P
* CT3
100P
ICT1
KS51810-5
CT1
4.7/6.3
* RT1
1
LDT1
SI5312-H
* QT1
C2412
1 VSS
2 XI
3 XO
4 P2.6
5 P0.0
6 P0.1
7 P0.2
8 P0.3
9 P1.0
10 P1.1
11 P1.2
12 P1.3
VDD 24
P2.0 23
TEST 22
P2.1 21
P2.2 20
P2.3 19
P2.4 18
P2.5 17
P3.0 16
P3.1 15
P3.2 14
P3.3 13
5 6 7 8 9 10 11 12
TV/VCR
POWER
TEST
INDEX
1 2 3
TRK+
TRK-
A.DUB
4 5 6
VCR+
SEARCH
CLOCK/COUNT
7 8 9
PRESET
CH-
0
CH+
SLOW+
VPS/PDC
SP/LP
Q.PROG
REC/OTR
STOP
P/S
SLOW-
REW
PLAY
FF
DECODER
MEMORY
CLEAR/RESET
DISPLAY
PROG
EJECT
OUTPUT.SEL
BAND.SEL
INPUT.SEL
SHUTTLE-
(SHIFT-)
SHUTTLE+
(SHIFT+)
13
14
15
16
17
18
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20
21

SAMSUNG

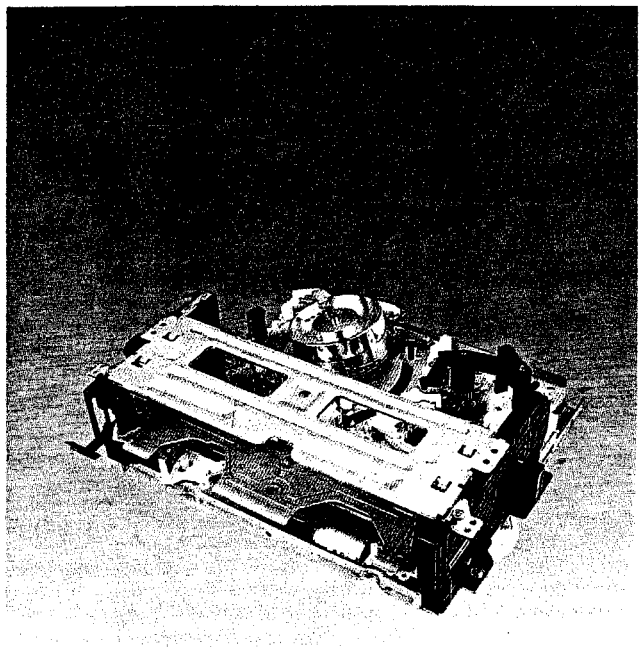
V14805

DX5-R/DX5-RC
DX6-R/DX6-RC

VHS

MECHANICAL Manual

DX5-R/C/DX6-R/C DECK



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5. Cleaning & Lubrication · · · · · 61

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1. Deck Parts Locations

1-1. Deck (Top View)

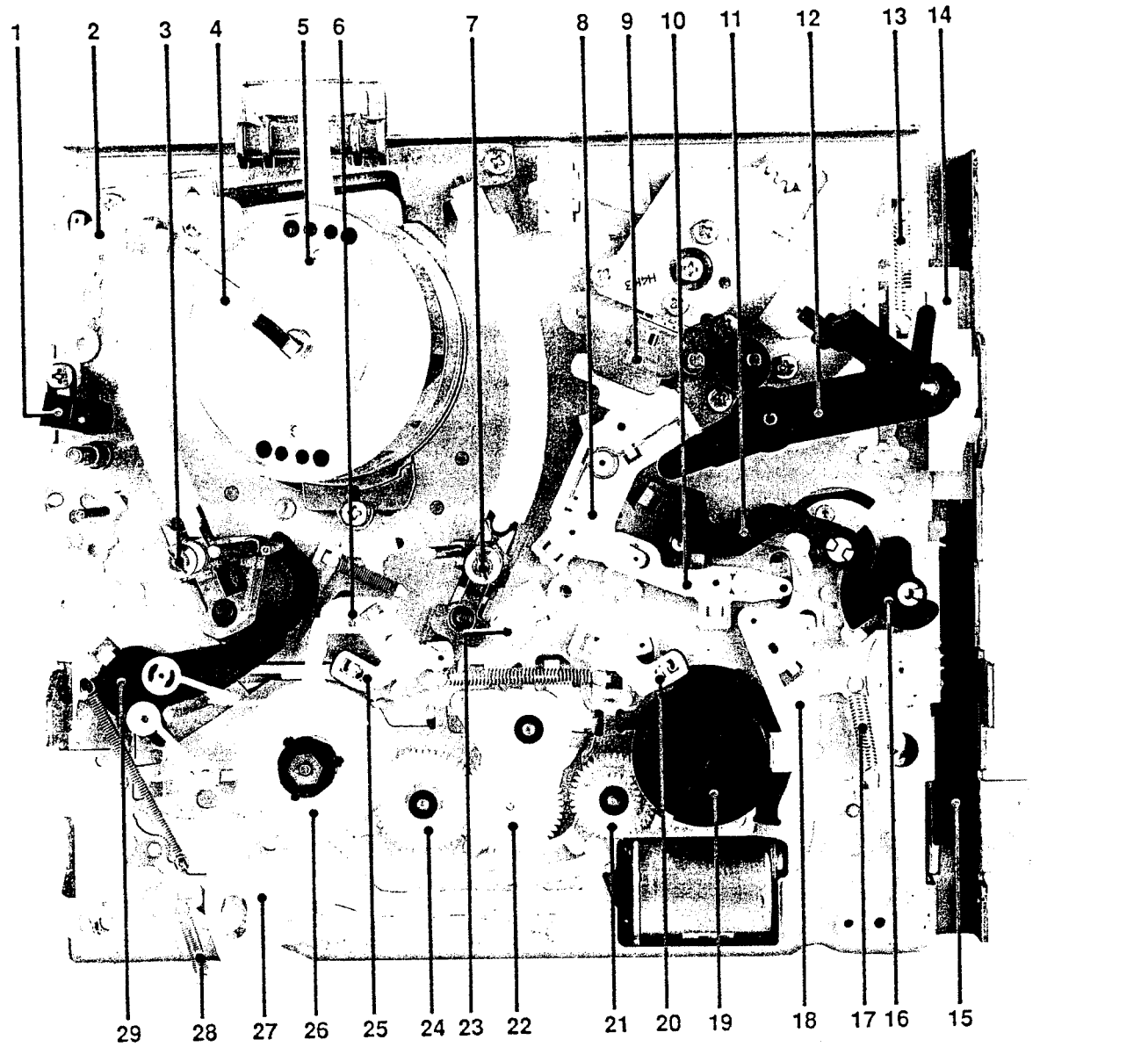


Fig. 1 Deck Parts Locations (DX5-R DECK ONLY)

1. FULL ERASE HEAD
2. HEAD CLEANER ASS'Y (DX-5 RC ONLY)
3. SLIDE GEAR LOADING ASS'Y "T"
4. HEAD BRUSH ASS'Y
5. CYLINDER ASS'Y
6. BRAKE SUB "L"
7. SLIDE GEAR LOADING ASS'Y "S"
8. LEVER PINCH COMP
9. FULL ACE HEAD ASS'Y
10. LEVER PINCH CAM
11. ARM REVIEW ASS'Y
12. UNIT PINCH ROLLER ASS'Y
13. SPRING SLIDE PUSH
14. SLIDE PINCH
15. SLIDE RACK HOUSING
16. LEVER REVIEW
17. SPRING BRAKE SUB "R"
18. BRAKE SUB "R" ASS'Y
19. REEL DISK "R" ASS'Y
20. BRAKE MAIN "R" ASS'Y
21. GEAR RELAY "T" ASS'Y
22. IDLER ASS'Y
23. PRISM LED
24. GEAR RELAY "S" ASS'Y
25. BRAKE MAIN "L" ASS'Y
26. REEL DISK "L" ASS'Y
27. LEVER REC SWITCH
28. SPRING REC SWITCH
29. ARM TENSION FULL ASS'Y

1-2. Deck (Top View)

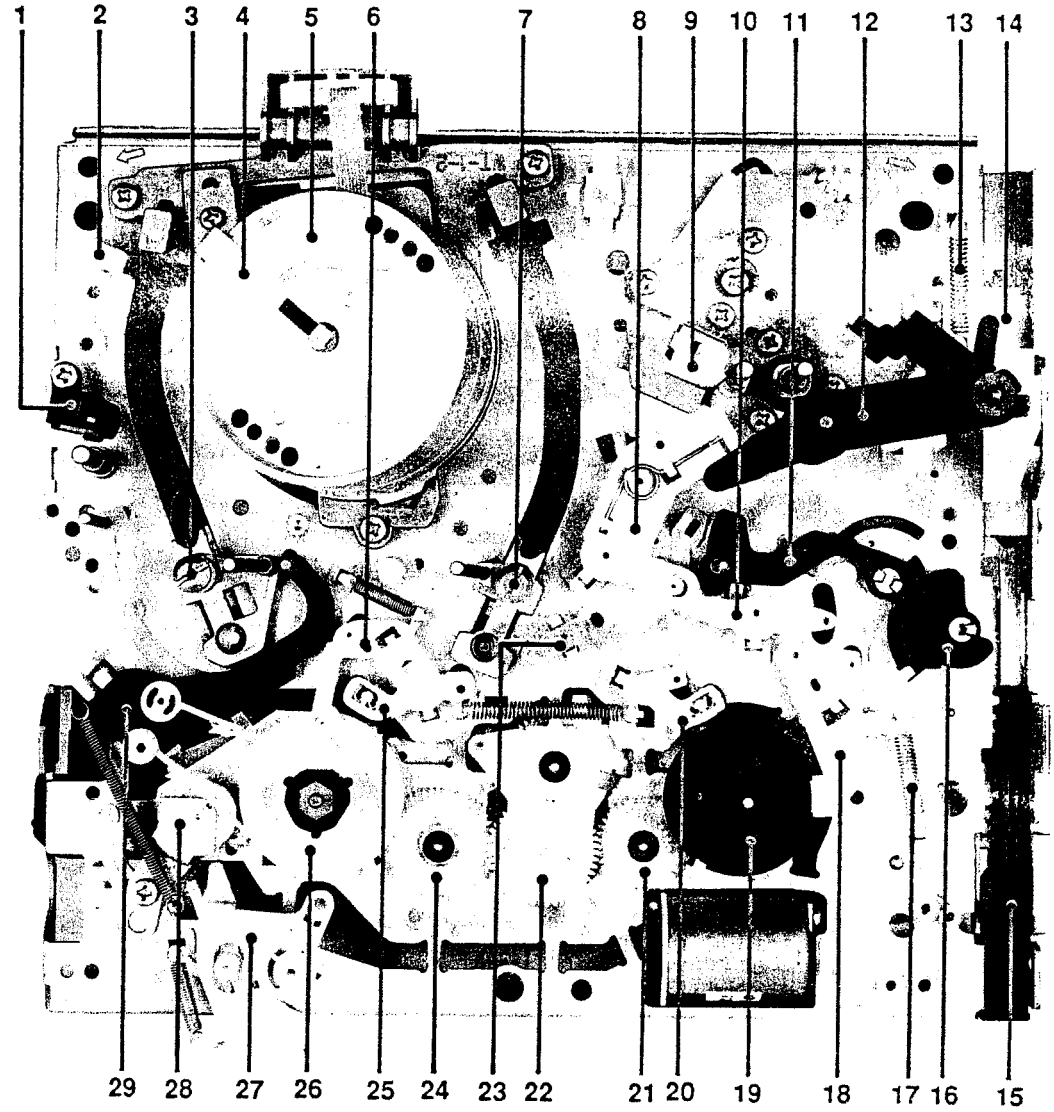


Fig. 2 Deck Parts Locations (DX6-R DECK ONLY)

1. FULL ERASE HEAD
2. STOPPER TAPE (DX6-R DECK ONLY)
3. SLIDE GEAR LOADING ASS'Y "T"
4. HEAD BRUSH ASS'Y
5. CYLINDER ASS'Y
6. BRAKE SUB "L"
7. SLIDE GEAR LOADING ASS'Y "S"
8. LEVER PINCH COMP
9. FULL ACE HEAD ASS'Y
10. LEVER PINCH CAM
11. ARM REVIEW ASS'Y
12. UNIT PINCH ROLLER ASS'Y
13. SPRING SLIDE PUSH
14. SLIDE PINCH
15. SLIDE RACK HOUSING
16. LEVER REVIEW
17. SPRING BRAKE SUB "R"
18. BRAKE SUB "R" ASS'Y
19. REEL DISK "R" ASS'Y
20. BRAKE MAIN "R" ASS'Y
21. GEAR RELAY "T" ASS'Y
22. IDLER ASS'Y
23. PRISM LED
24. GEAR RELAY "S" ASS'Y
25. BRAKE MAIN "L" ASS'Y
26. REEL DISK "L" ASS'Y
27. LEVER REC SWITCH
28. LEVER JOG ASS"Y
29. ARM TENSION FULL ASS'Y

1-3. Deck (Bottom View)

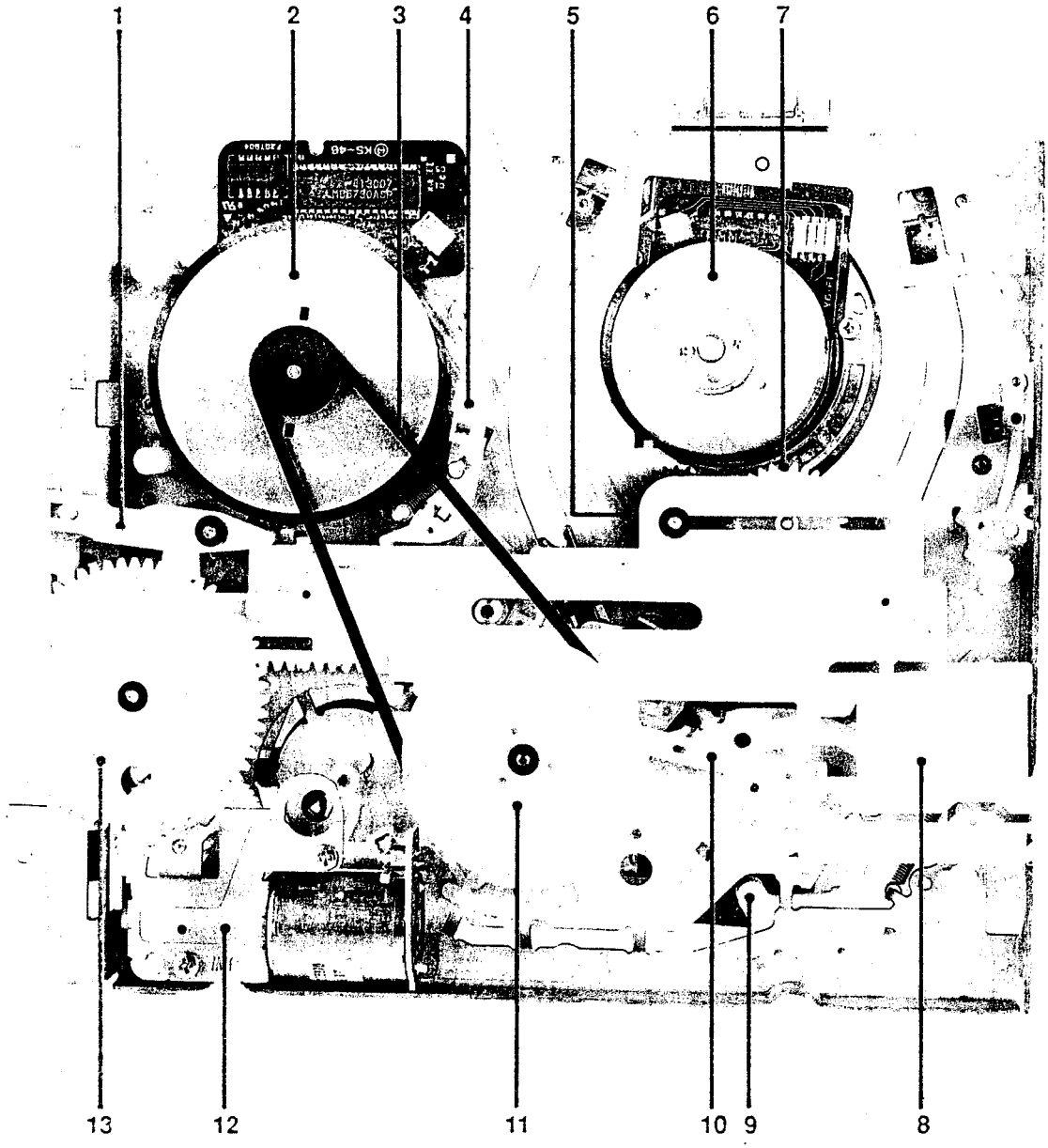


Fig. 3 Deck Parts Locations (Bottom View)

1. LEVER SLIDE PINCH
2. MOTOR D.D CAPSTAN
3. BELT CAPSTAN
4. BRAKE CAPSTAN ASS'Y
5. GEAR LOADING "R" ASS'Y
6. MOTOR CYLINDER
7. GEAR LOADING "L" ASS'Y
8. SLIDE MAIN (White for the X-5 Deck)
8. SLIDE MAIN (Black for the X-5 Deck)
9. LEVER REC SWITCH
10. LEVER IDLER CHANGE
11. CLUTCH ASS'Y
12. UNIT LOADING
13. GEAR MASTER

1-4. Housing

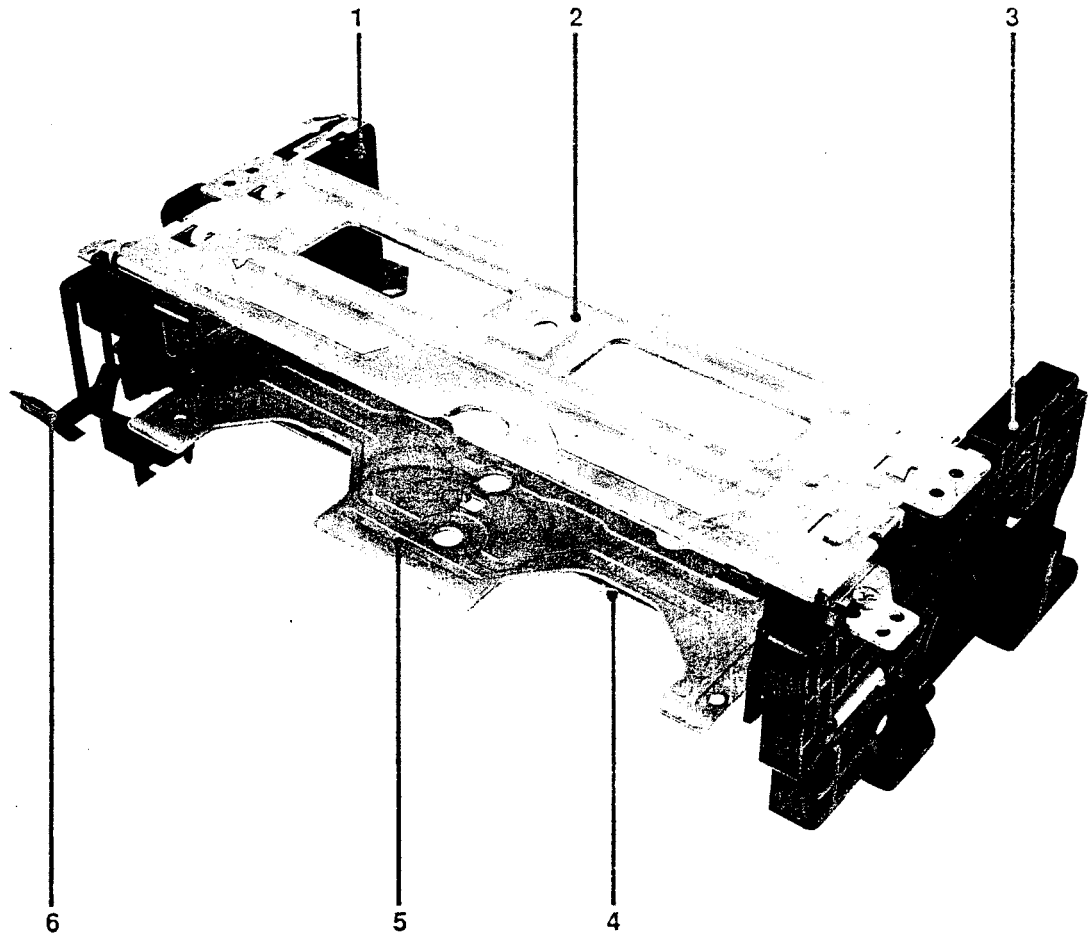


Fig. 4 Housing Parts Locations

1. CHASSIS SIDE "L" ASS'Y
2. UPPER CHASSIS
3. CHASSIS SIDE "R" ASS'Y
4. SHAFT ARM ASS'Y
5. HOLDER CASSETTE ASS'Y
6. LEVER DOOR ASS'Y

2. Housing Assembly

2-1. Removal from Main Base

1) Remove three(3) screws ①.
2) Lift the housing ass'y in the direction of arrow "B" while pushing the tab ② in the direction of arrow "A". (Refer to detail drawing)

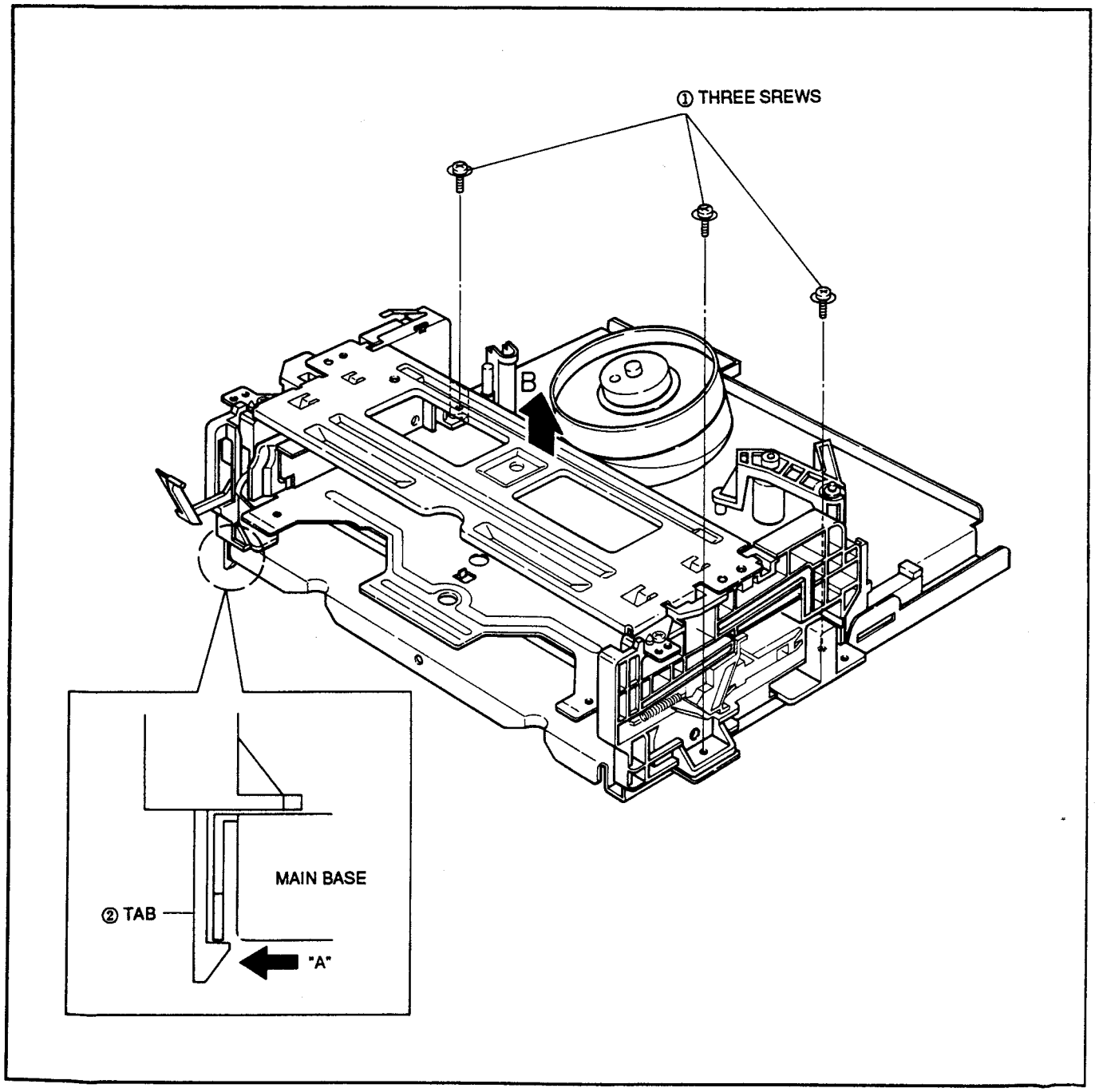


Fig. 5 Housing Ass'y Removal from Main Base

2-2. Disassembly

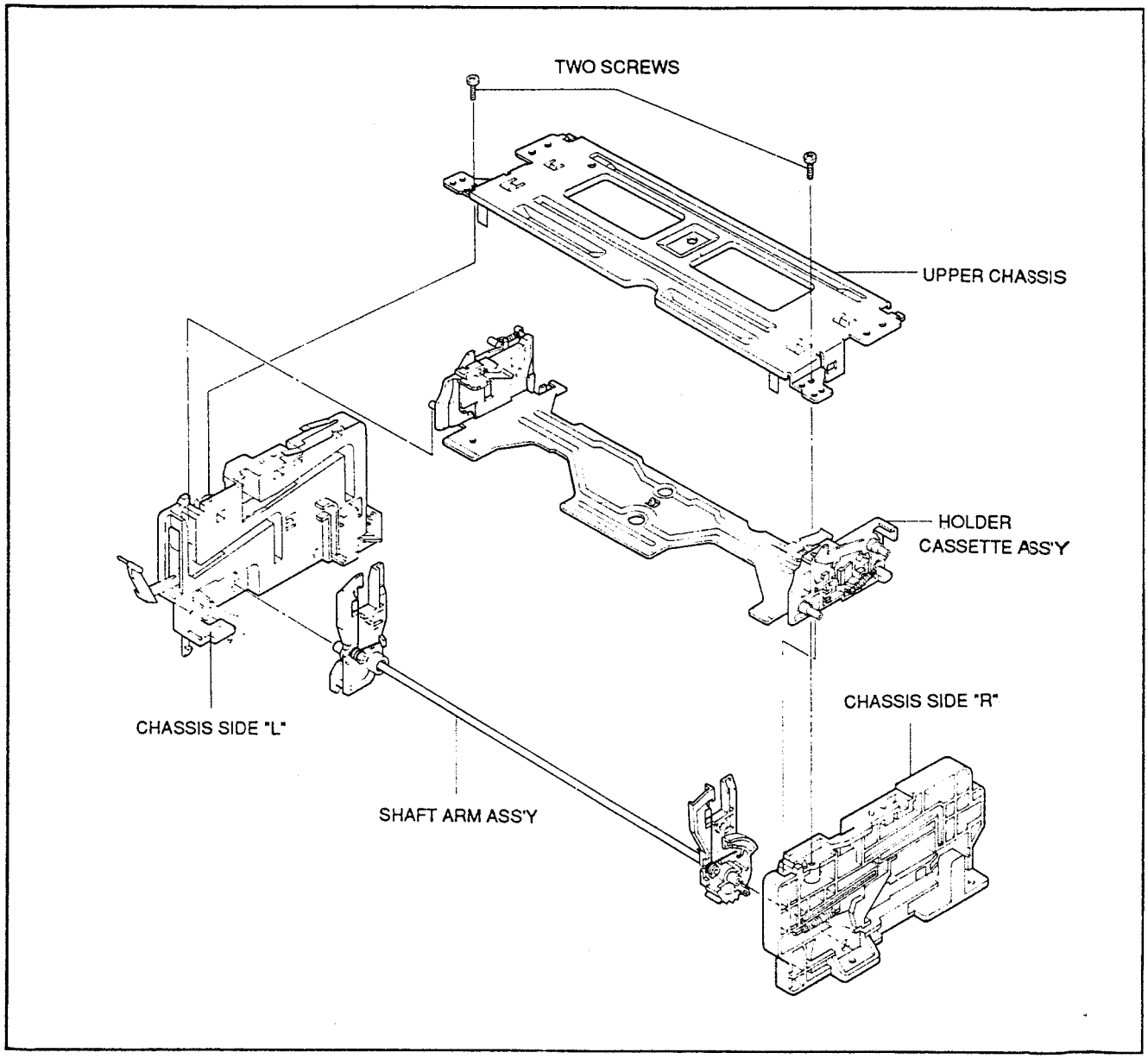


Fig. 6 Housing Ass'y Removal

2-3. Upper Chassis Removal

1) Remove two(2) screws ①.
2) Lift the upper chassis ④ in the direction of arrow "C" while pushing the two(2) tabs ②,③ in the direction of arrows "A", "B". (Refer to detail drawings "A", "B")

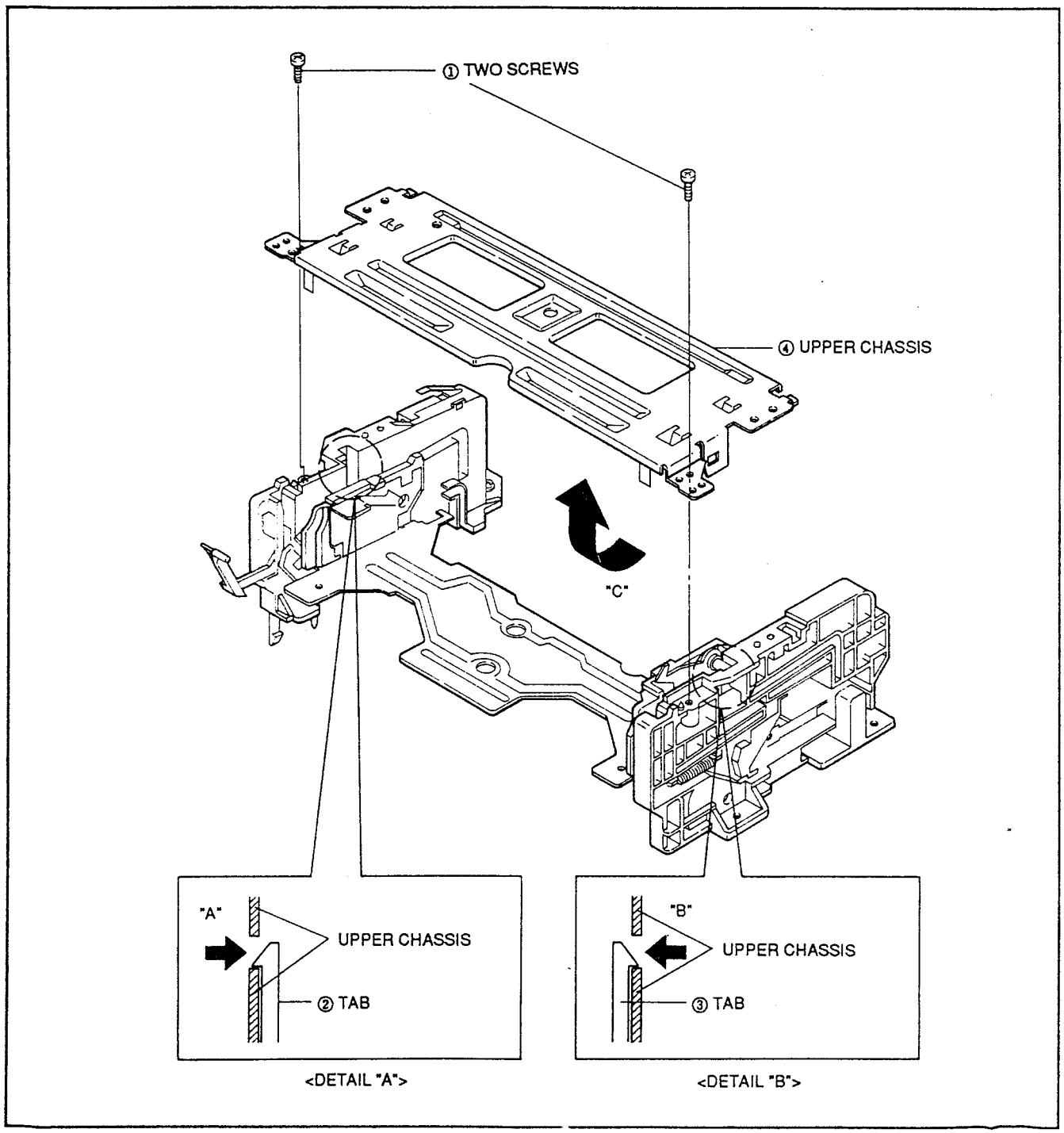


Fig. 7 Upper Chassis Removal

2-4. Holder Cassette Ass'y & Chassis Side L/R Removal

1) Lift the holder cassette ① in the direction of arrow "A" (Refer to Fig. A).
2) Remove the chassis side "L" ② & "R" ③ from shaft arm ass'y ④ in the direction of arrows "B", "C" (Refer to Fig. B).

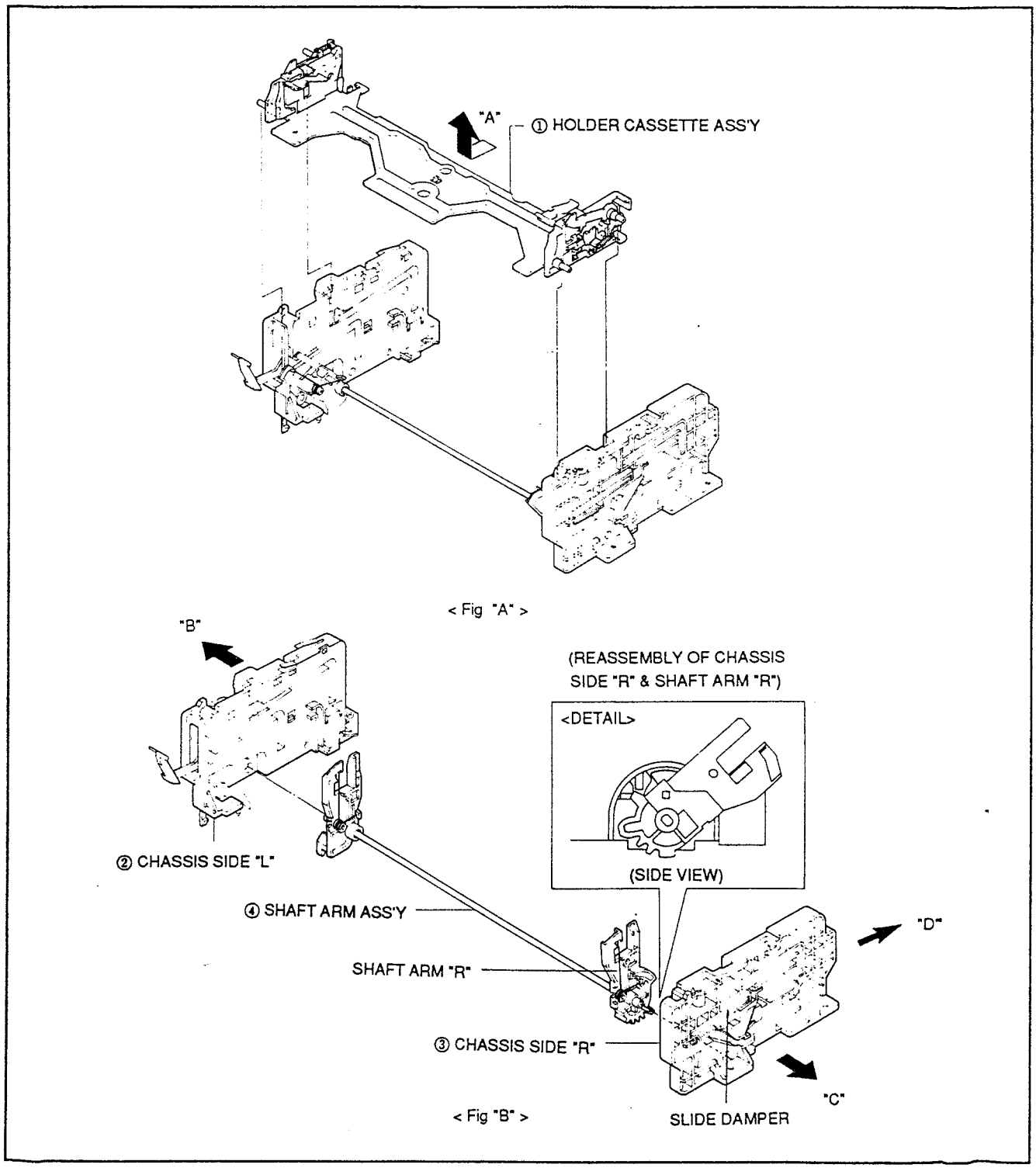


Fig. 8 Holder Cassette Ass'y & Chassis Side L/R

2-5. Chassis Side "R" Parts Locations

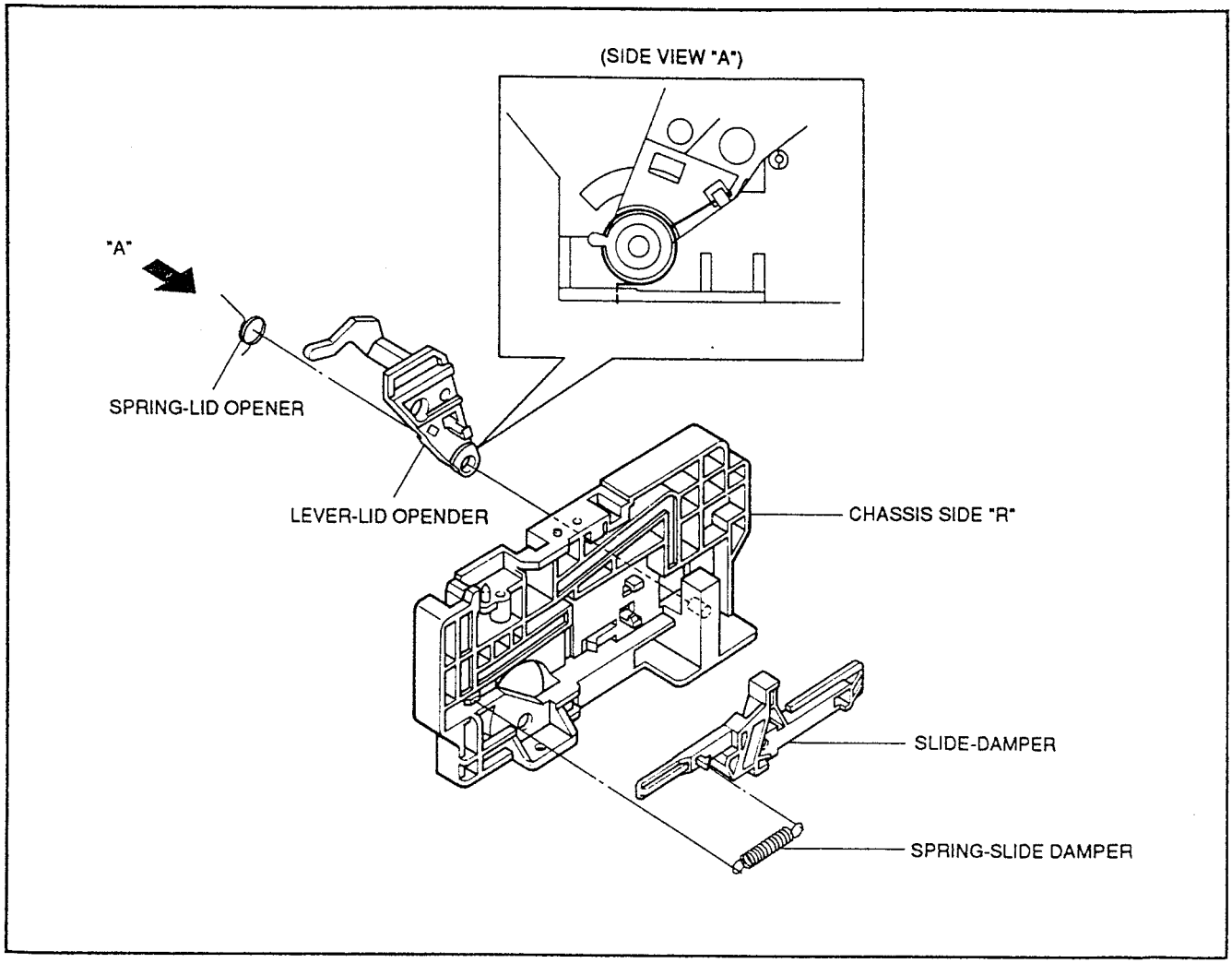


Fig. 9 Chassis Side "R" Parts Locations

NOTE : If you operate the deck when the holder cassette ass'y is removed, the shaft arm "R" and the slide damper are not returned to their original position. If this happens by accident, push the slide damper of chassis side "R" in the direction of arrow "D", and return the slide damper in the reverse direction of arrow "D" when the shaft arm ass'y is in eject mode.

2-6. Slide Damper Removal

1) Remove the spring slide damper ①.

2) Push the stopper ③ of the chassis side "R" ④. Move the slide damper ② in the direction of arrow.

3) Align the slide damper ② with the chassis side tab (as shown detail drawing).

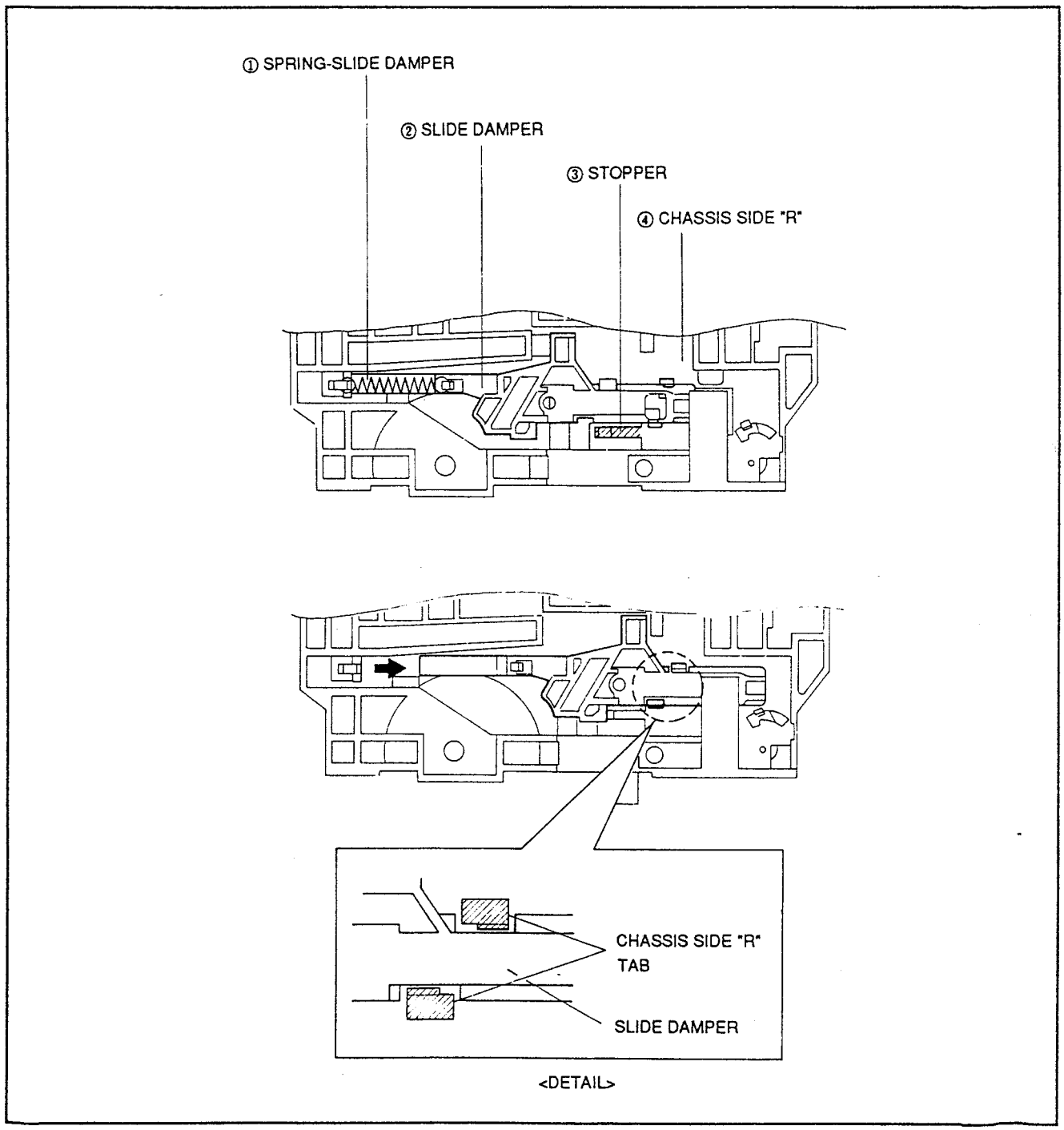


Fig. 10 Slide Damper Removal

3. Cylinder Ass'y

3-1. Exploded View of Cylinder Ass'y

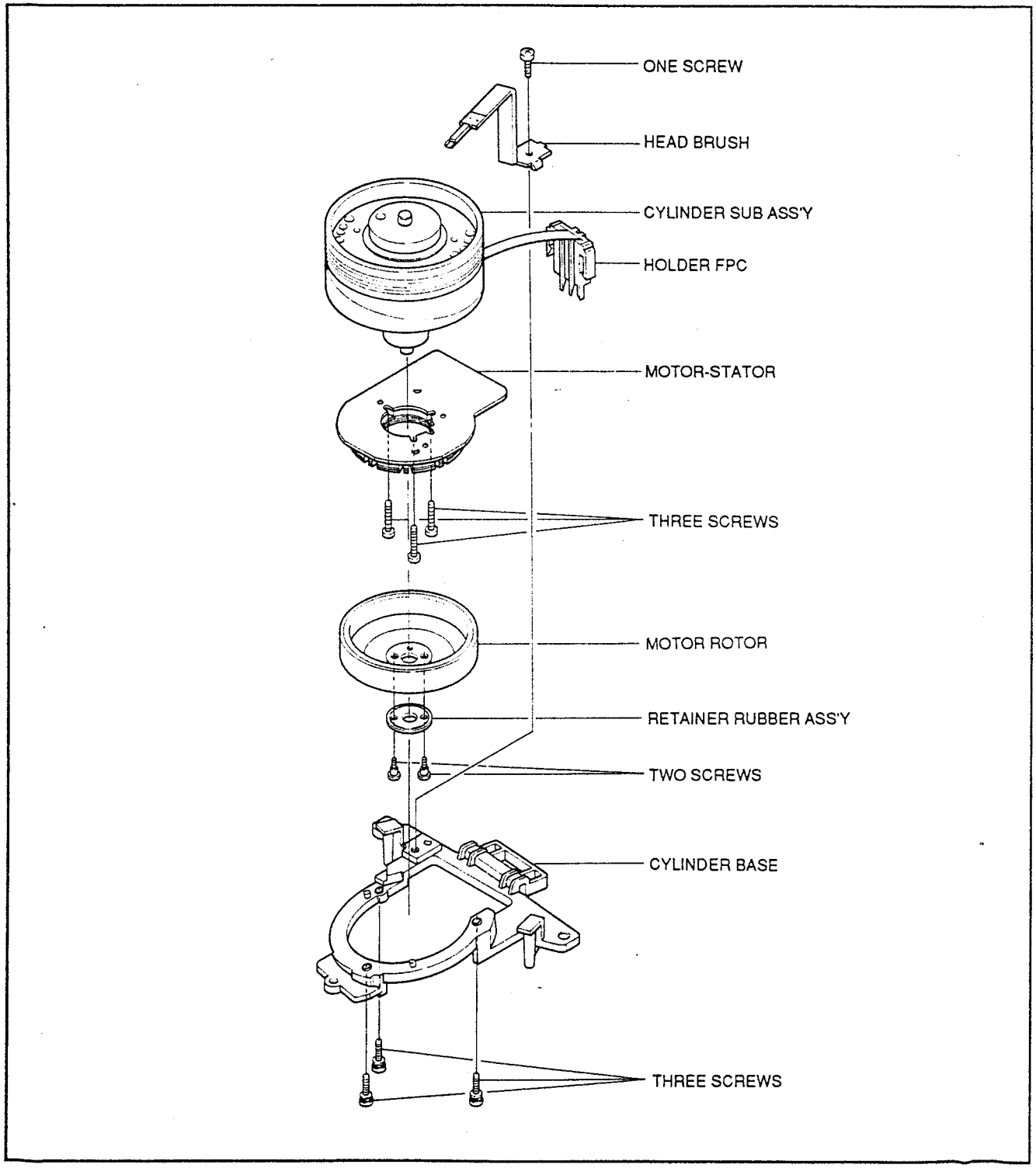


Fig. 11 Exploded View of Cylinder Ass'y

3-2. Stopper Tape Removal (Only for Deck :DX5-R/DX6-R)

1) Release one(1) tab ① in the direction of arrow "A". (Refer to detail drawing)
2) Lift the stopper tape ② in the direction of arrow "B".

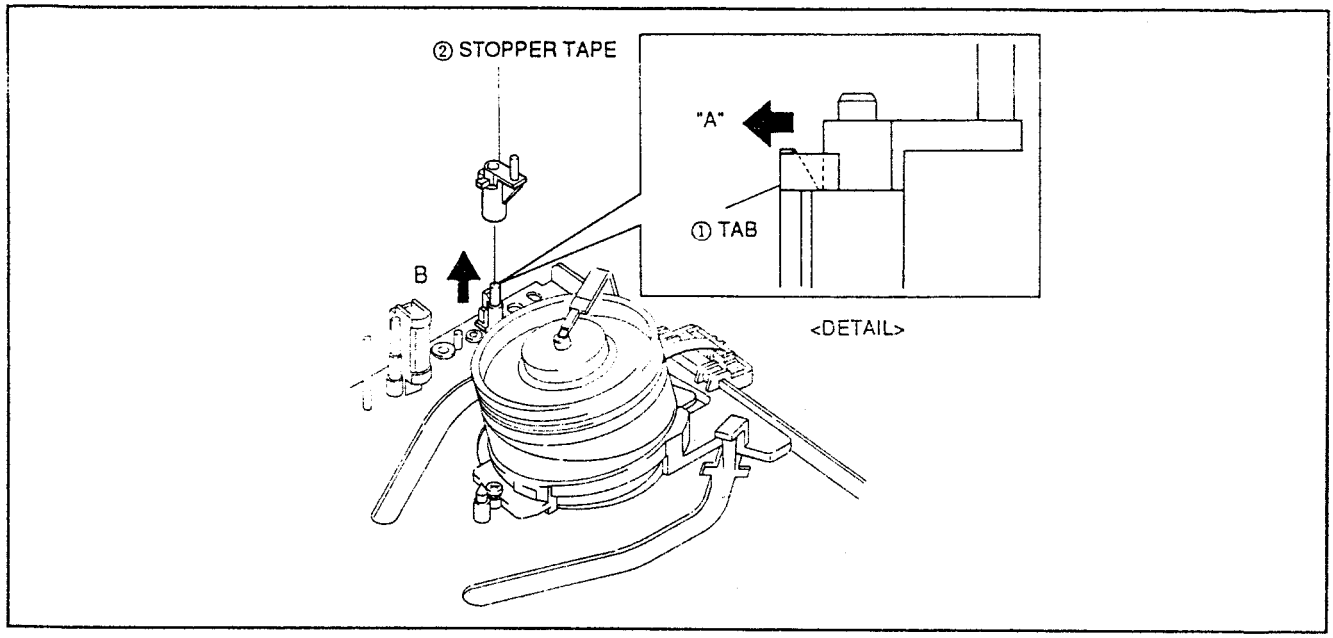


Fig. 12 Stopper Tape Removal

3-2-1. Ass'y Head Cleaner Removal (Only for deck : DX5-RC/DX6-RC)

1) Release one(1) tab ① in the direction of arrow "A".
2) Lift the ass'y head cleaner ② in the direction of arrow "B".

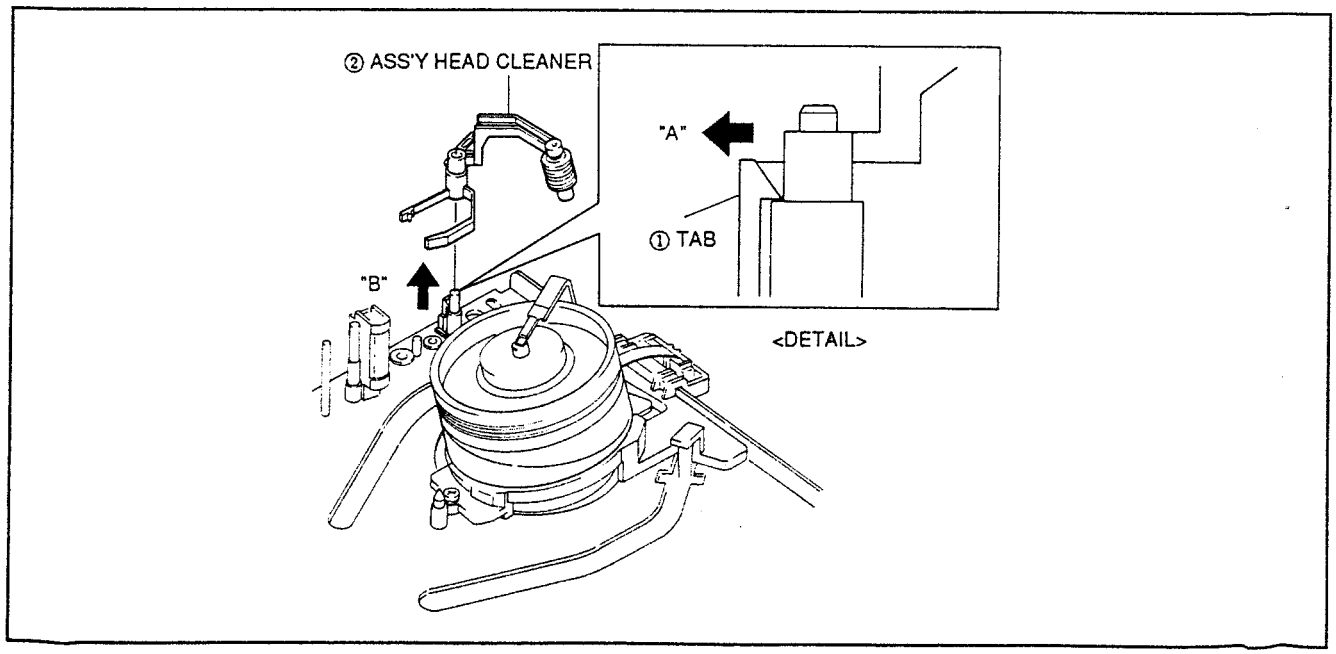


Fig. 12-1 Stopper Tape & Ass'y Head Cleaner Removal

3-3. Cylinder Ass'y Removal from Main Base

1) Remove three(3) screws ① holding the main base and the cylinder ass'y.
2) Lift the cylinder ass'y ② in the direction of arrow.

NOTE : Do not touch the video heads during removal or installation.

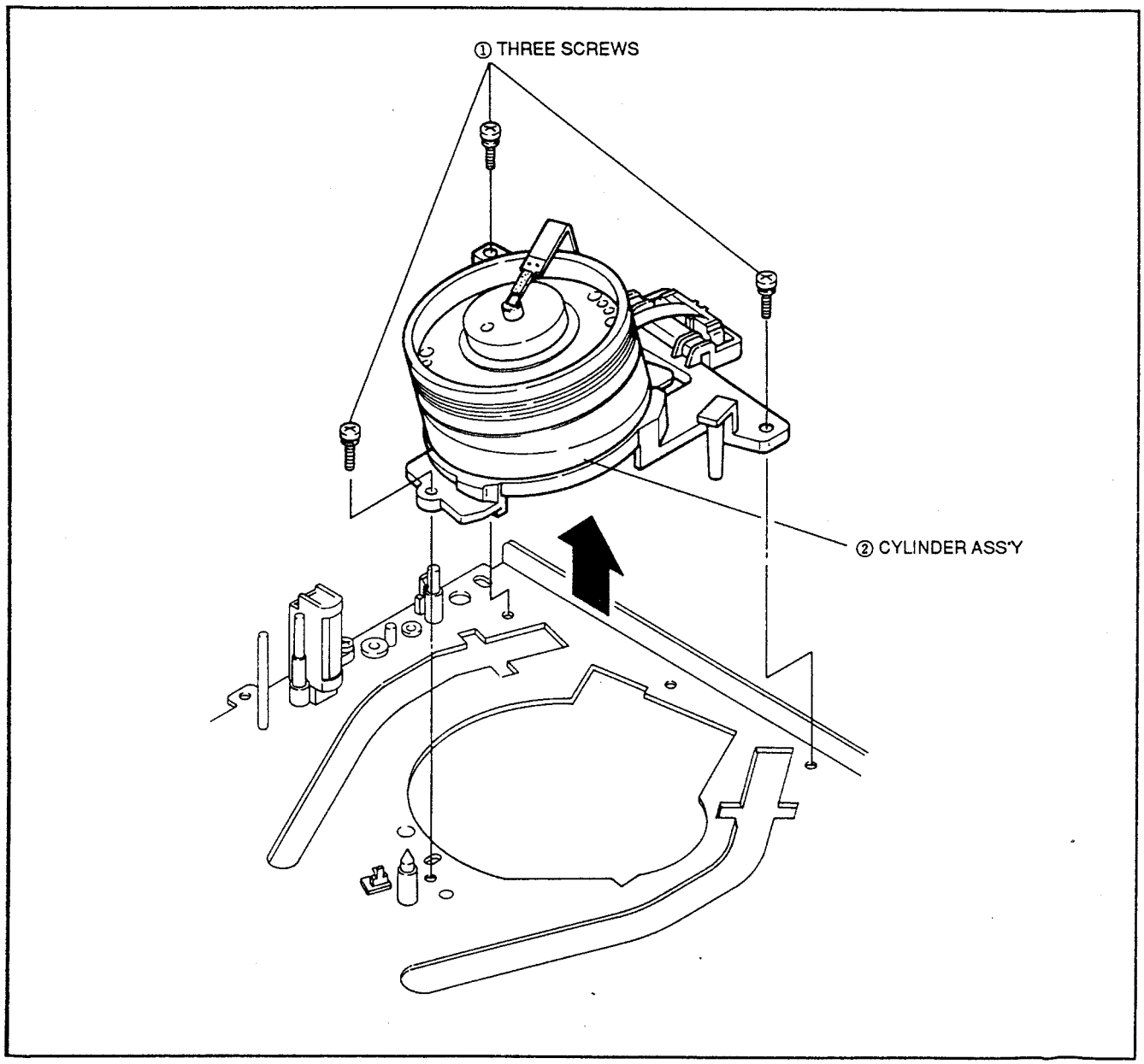


Fig. 13 Cylinder Ass'y Removal from Main Base

3-4. Head Brush & Holder FPC Removal

1) Remove one(1) screw ① and then lift the head brush ②.
2) Release the holder FPC tab holding the cylinder base ④ in the direction of arrow. (Refer to detail drawing)
3) Disconnect the holder FPC ③ from the cylinder base ④.

NOTE : When disconnecting the holder FPC ③ from the cylinder base ④: Take care not to disconnect the FPC cable from the holder FPC (The FPC cable is very short.).

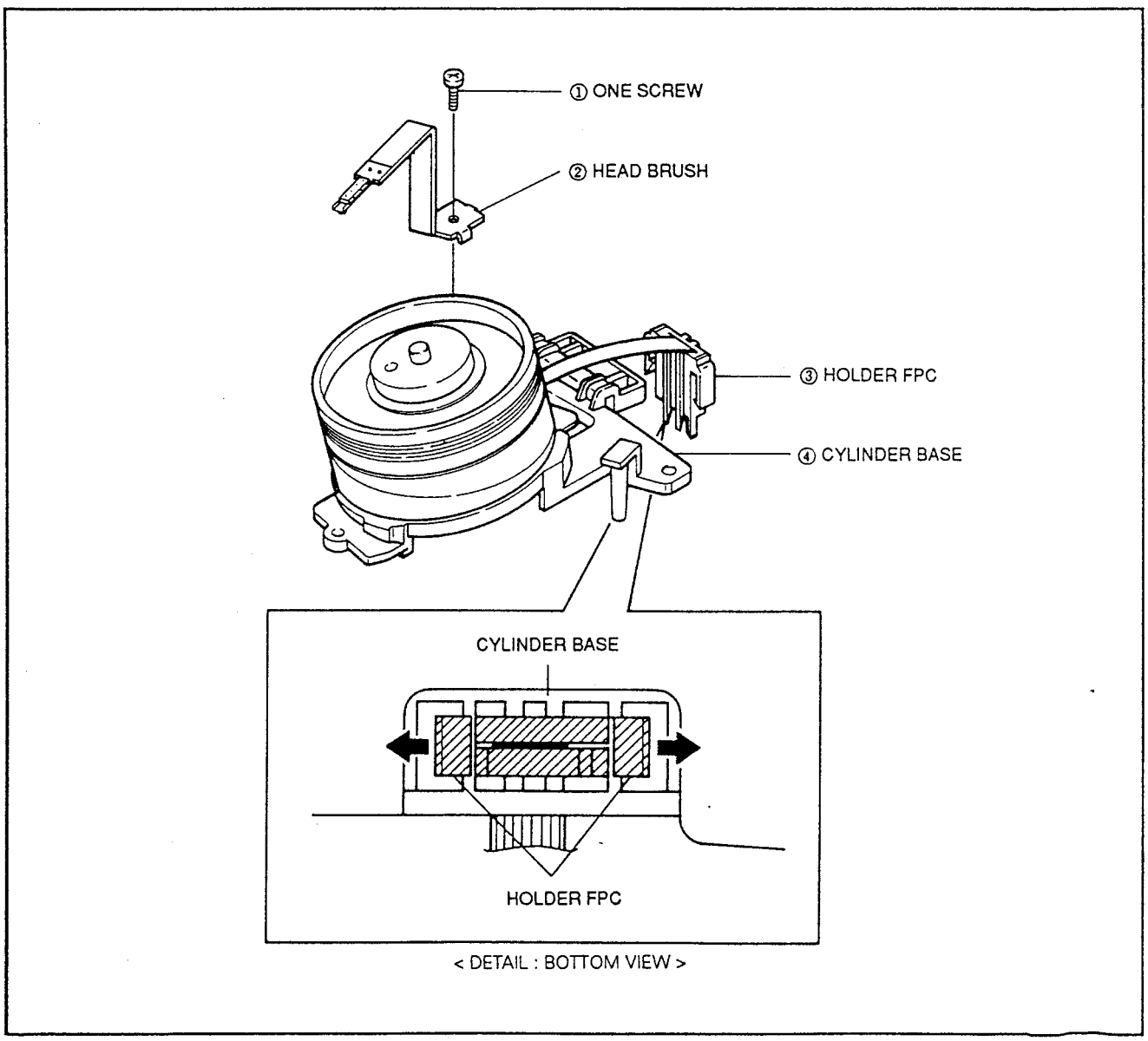


Fig. 14 Head Brush & Holder FPC Removal

3-5. Cylinder Ass'y Removal from Cylinder Base

1) Remove three(3) screws ① from the cylinder base ②.
2) Lift the cylinder ass'y ③ from the cylinder base ② in the direction of arrow.

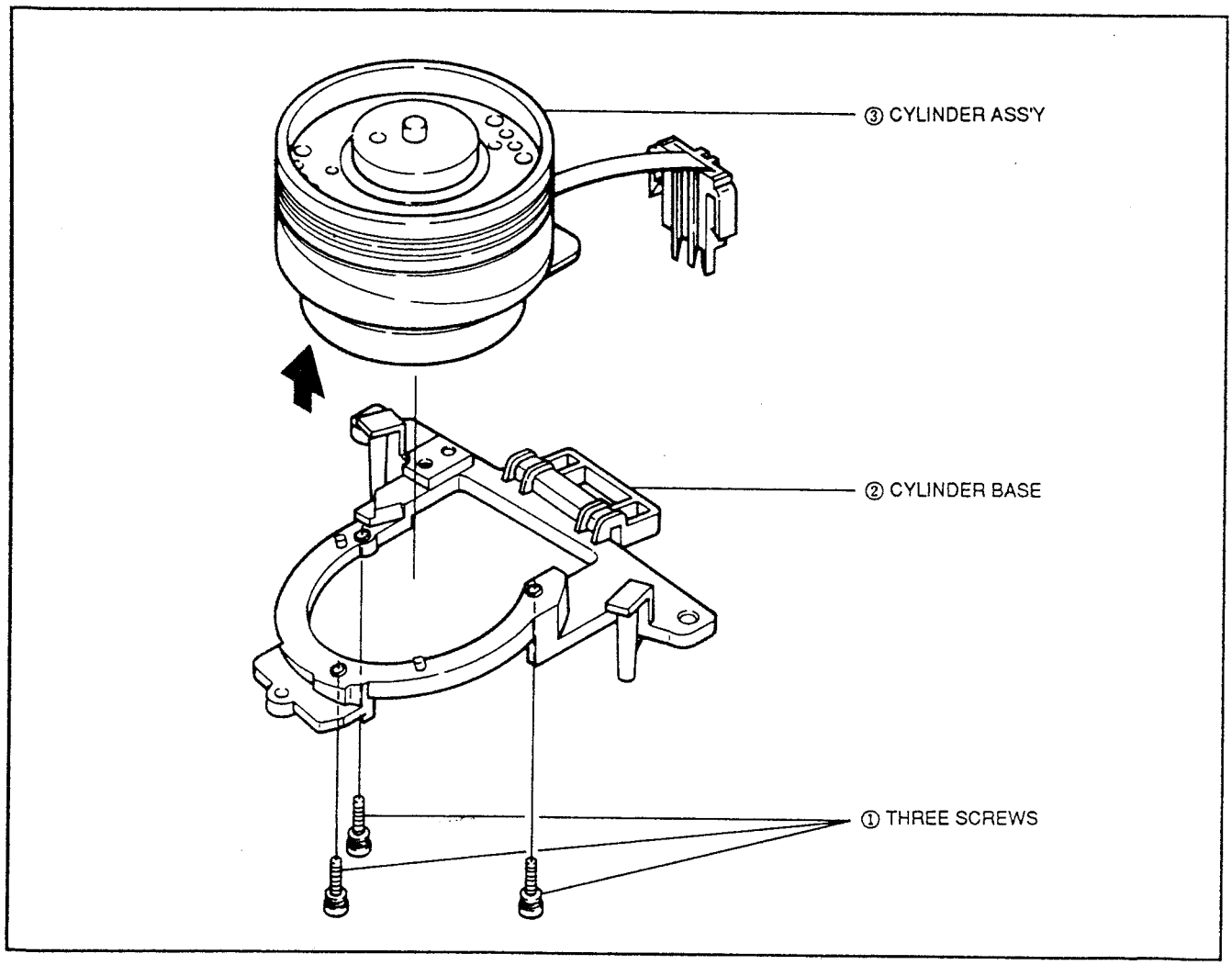


Fig. 15 Cylinder Ass'y Removal from Cylinder Base

3-6. Motor Rotor Removal

1) Remove two(2) screws ①.

2) Lift the retainer rubber ass'y ② and the motor rotor ③.

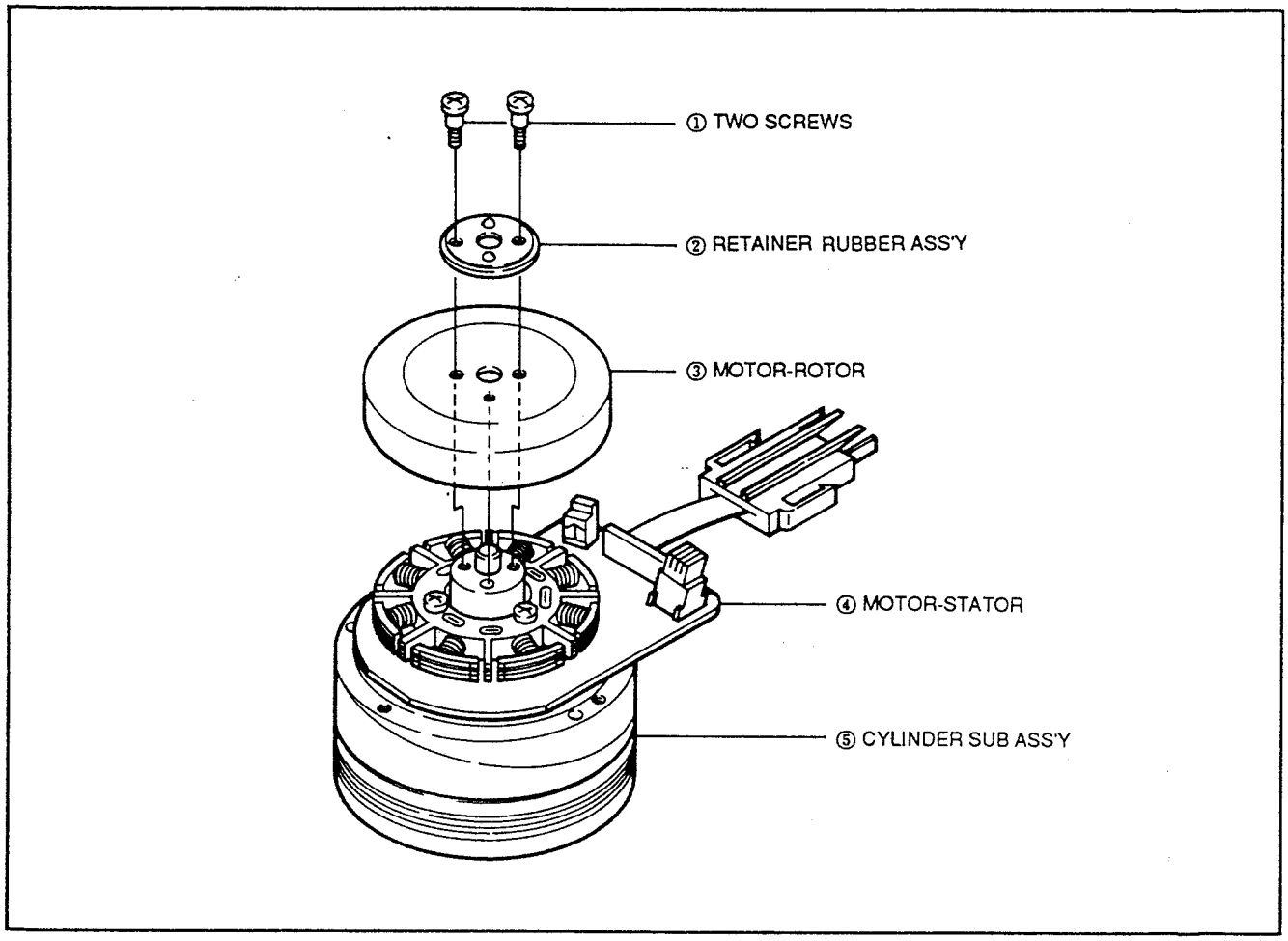


Fig. 16 Motor Rotor Removal

3-7. Motor Rotor & Cylinder Sub Ass'y

1) Make sure that phase matching holes of the motor rotor & the cylinder sub ass'y are aligned correctly as shown in Fig. 17 . (Refer to phase matching hole)
2) Reinstall the retainer rubber ass'y ② and secure with two(2) screws.

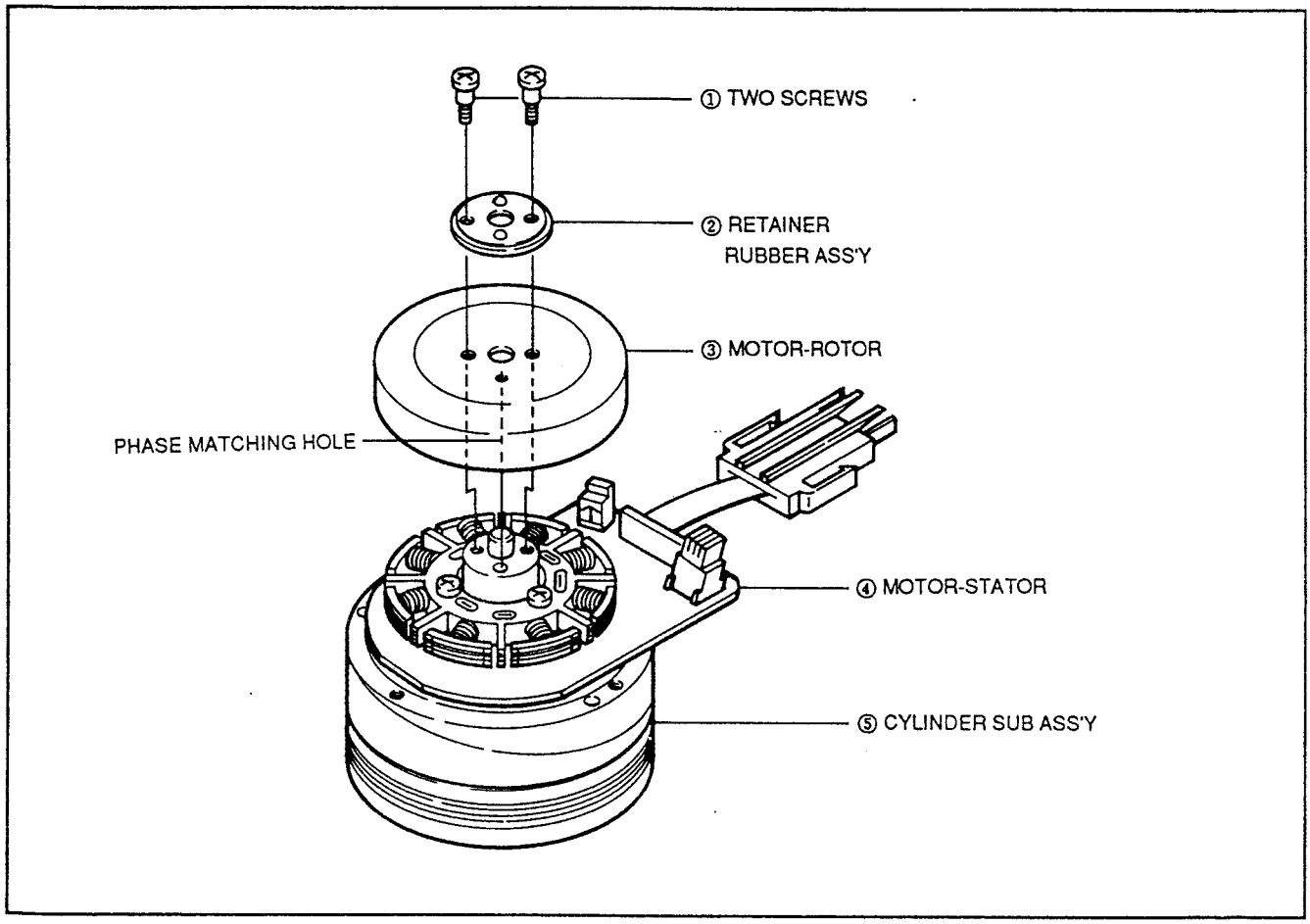


Fig. 17 Assembly of Motor Rotor & Cylinder Sub Ass'y

3-8. Motor Stator Removal

1) Remove three(3) screws ①.

2) Remove the motor stator ② from the cylinder sub ass'y ③.

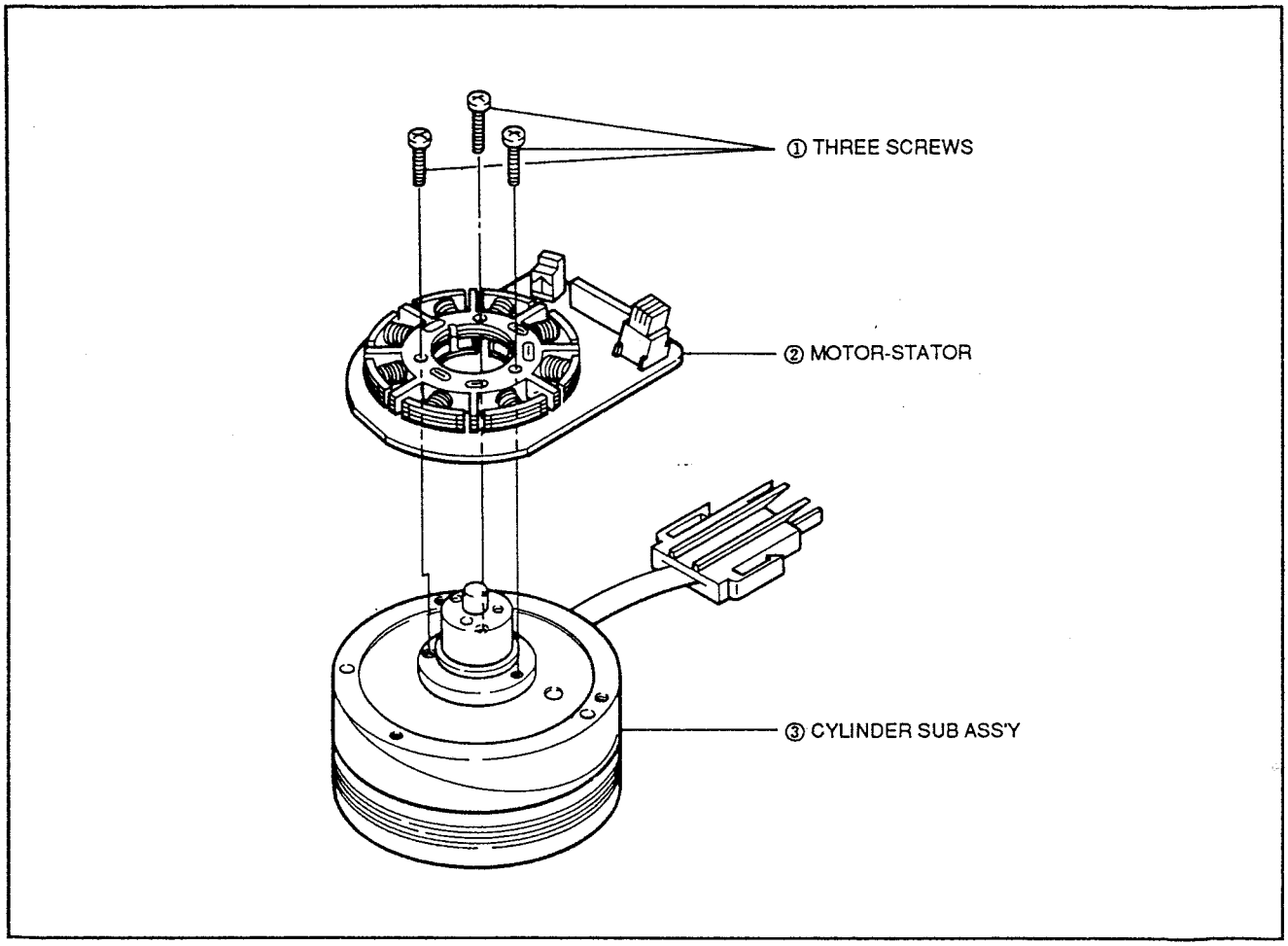


Fig. 18 Motor Stator Removal

3-9. Motor Stator & Cylinder Sub Ass'y

1) Reinstall the motor stator ① toward the FPC cable of cylinder sub ass'y ②.
2) Secure with three(3) screws. (Refer to Fig. 18)

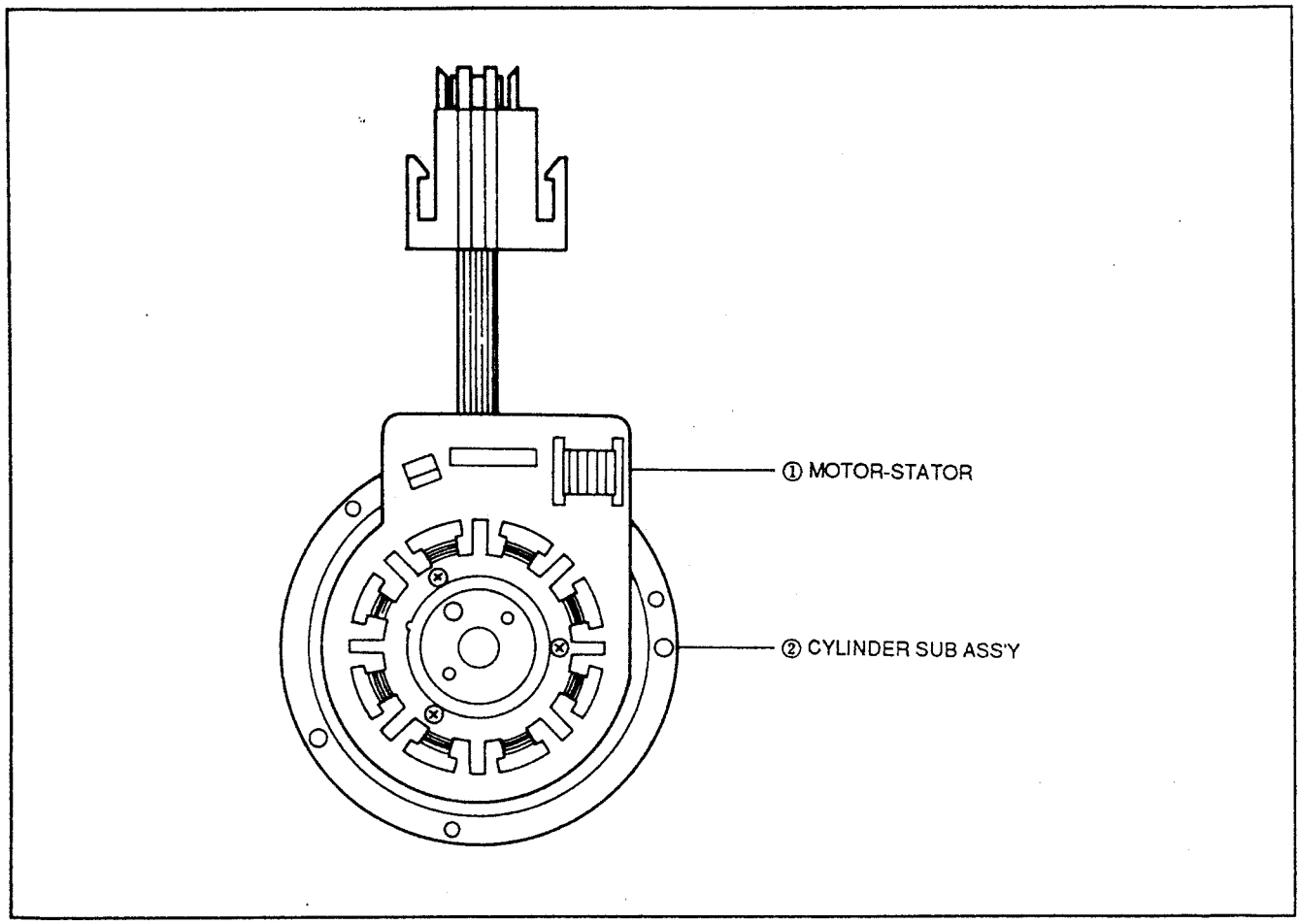


Fig. 19 Assembly of Motor Stator & Cylinder Sub Ass'y

4. Main Deck Removal & Reassembly

4-1. Slide Rack Housing Removal

1) Lift the slide rack housing in the direction of arrow.

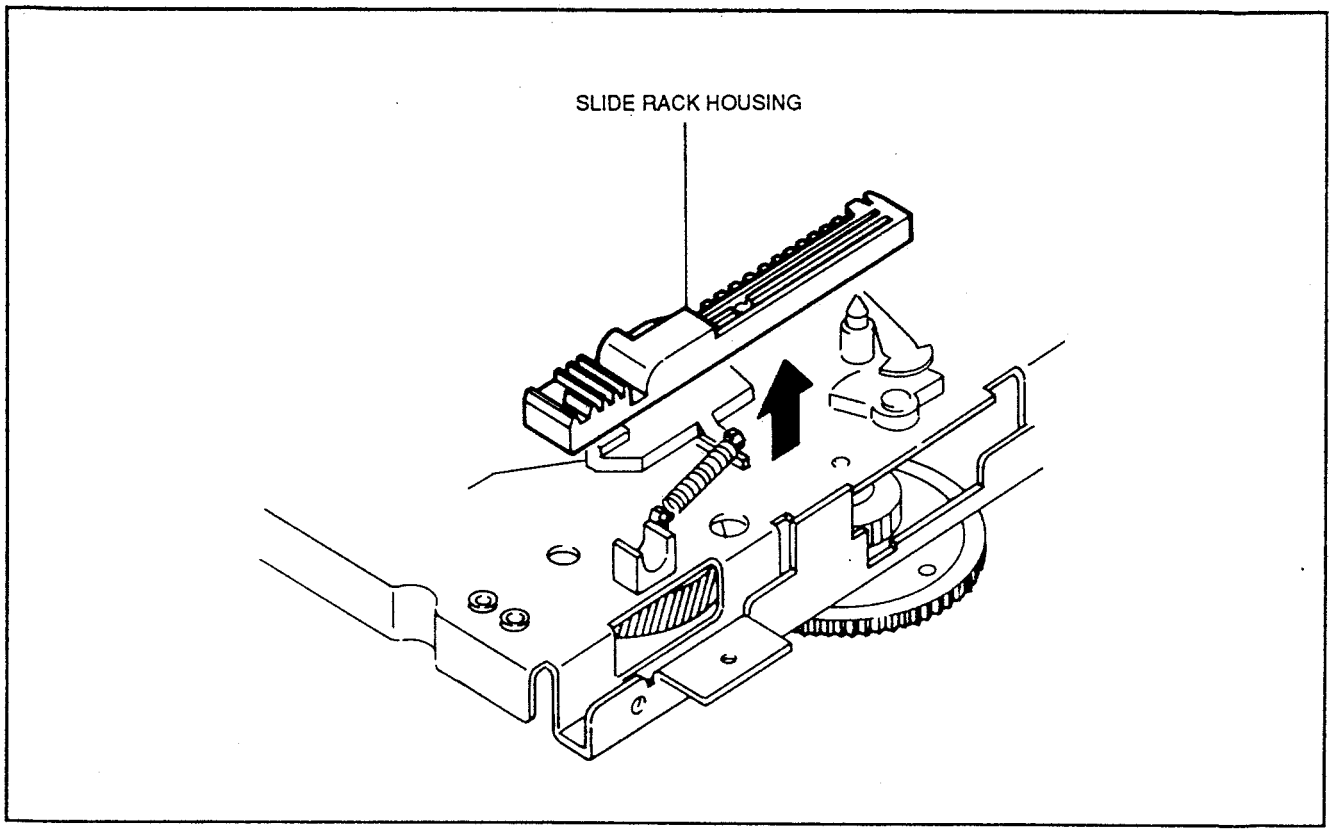


Fig. 20 Slide Rack Housing Removal

4-2. Assembly of Slide Rack Housing & Gear Master

1) Confirm that the hole of gear master ① and the hole "A" of main base are aligned correctly. (Eject mode)
2) Align the slot #1 of gear master ① with the tooth #1 of slide rack housing. (Refer to timing point)

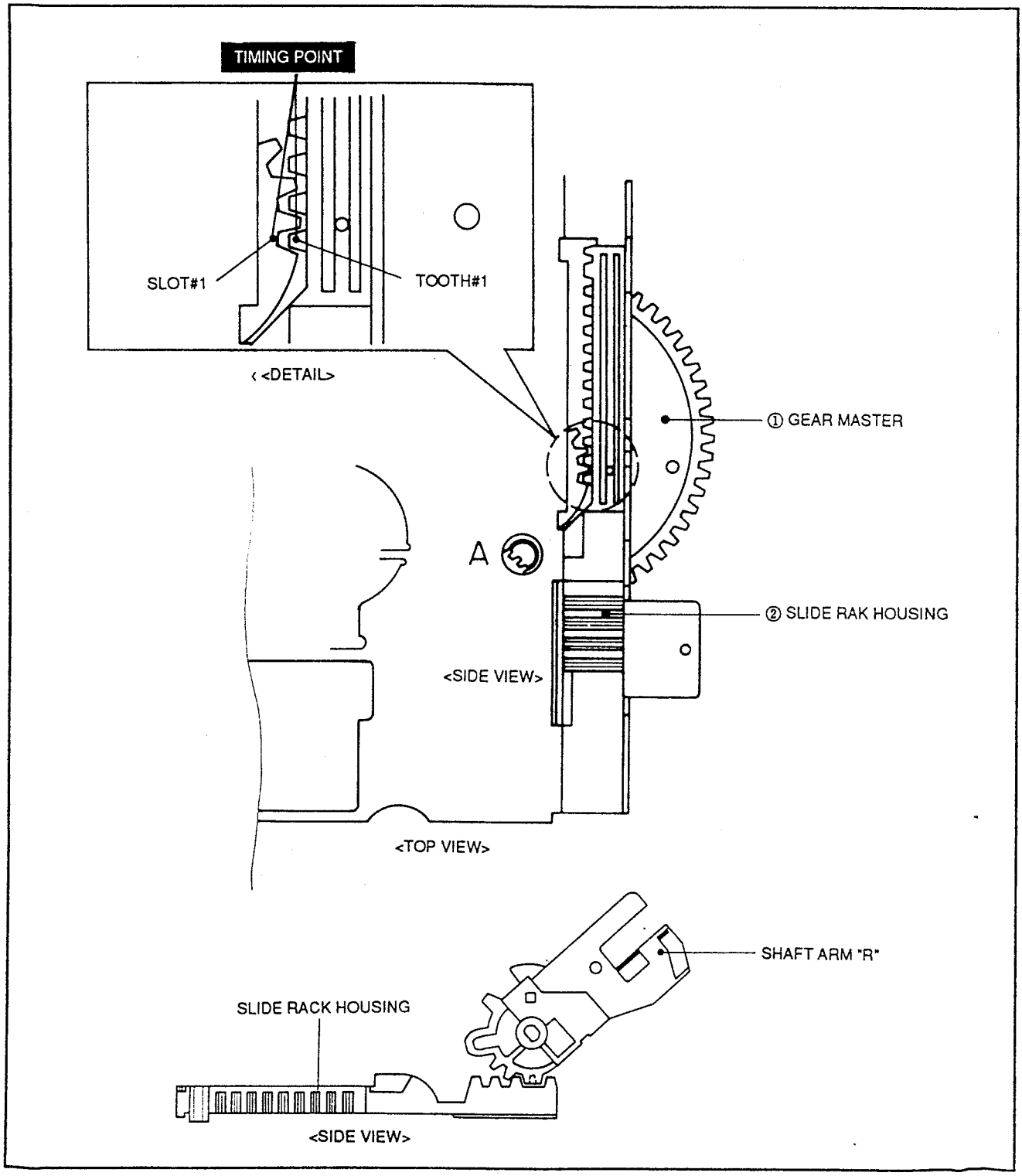


Fig. 21 Assembly of Slide Rack Housing & Gear Master

4-3. Brake Sub "L" Removal

1) Remove the spring brake sub "L" ①.
2) Release the tab ② in the direction of arrow. (Refer to detail drawing)
3) Lift the brake sub "L" ③.

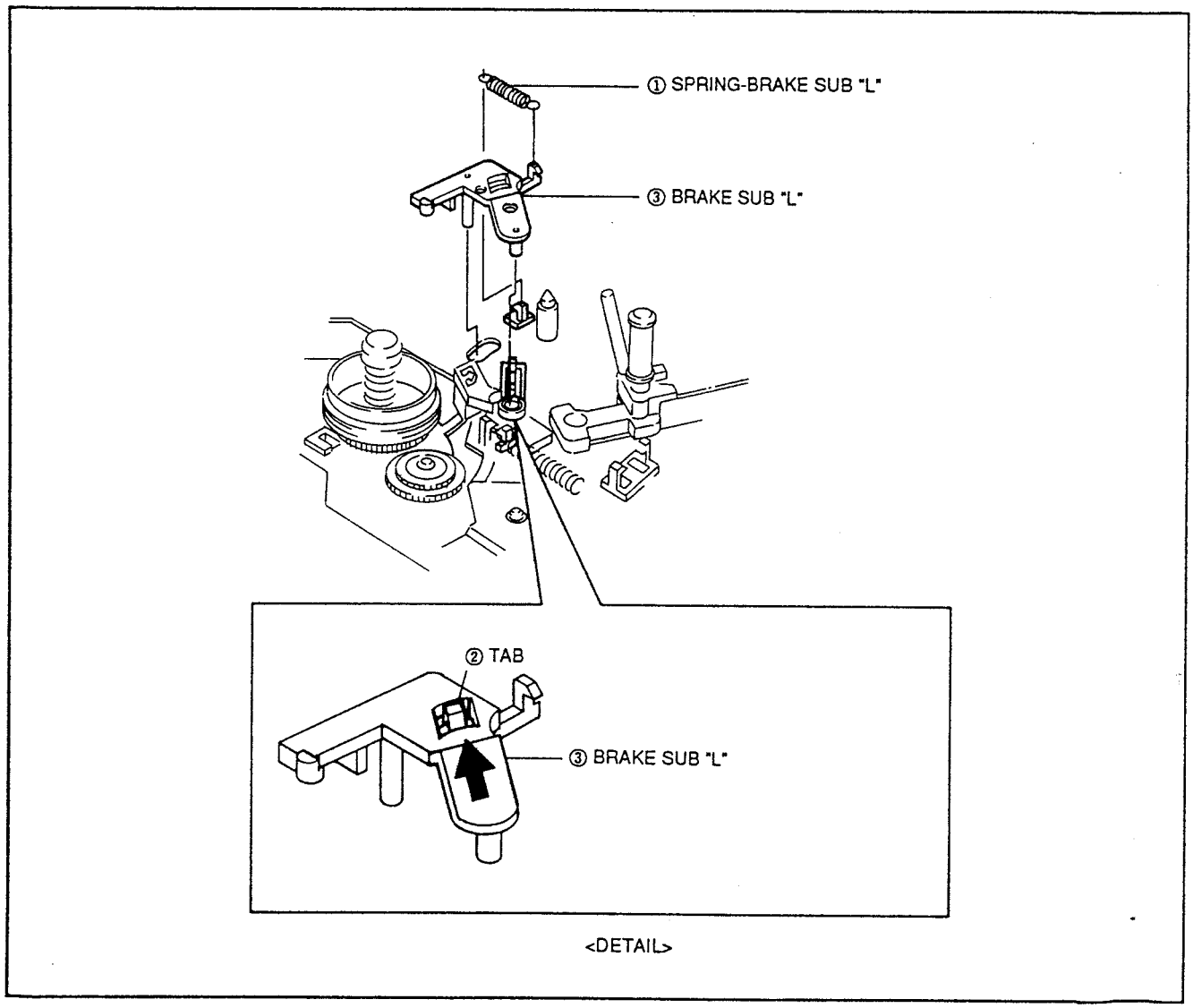


Fig. 22 Brake Sub "L" Removal

4-4. Arm Tension Full Ass'y Removal

1) Remove the spring tension ①.
2) Release the tab ② in the direction of arrow. (Refer to detail drawing)
3) Lift the arm tension full ass'y ③.

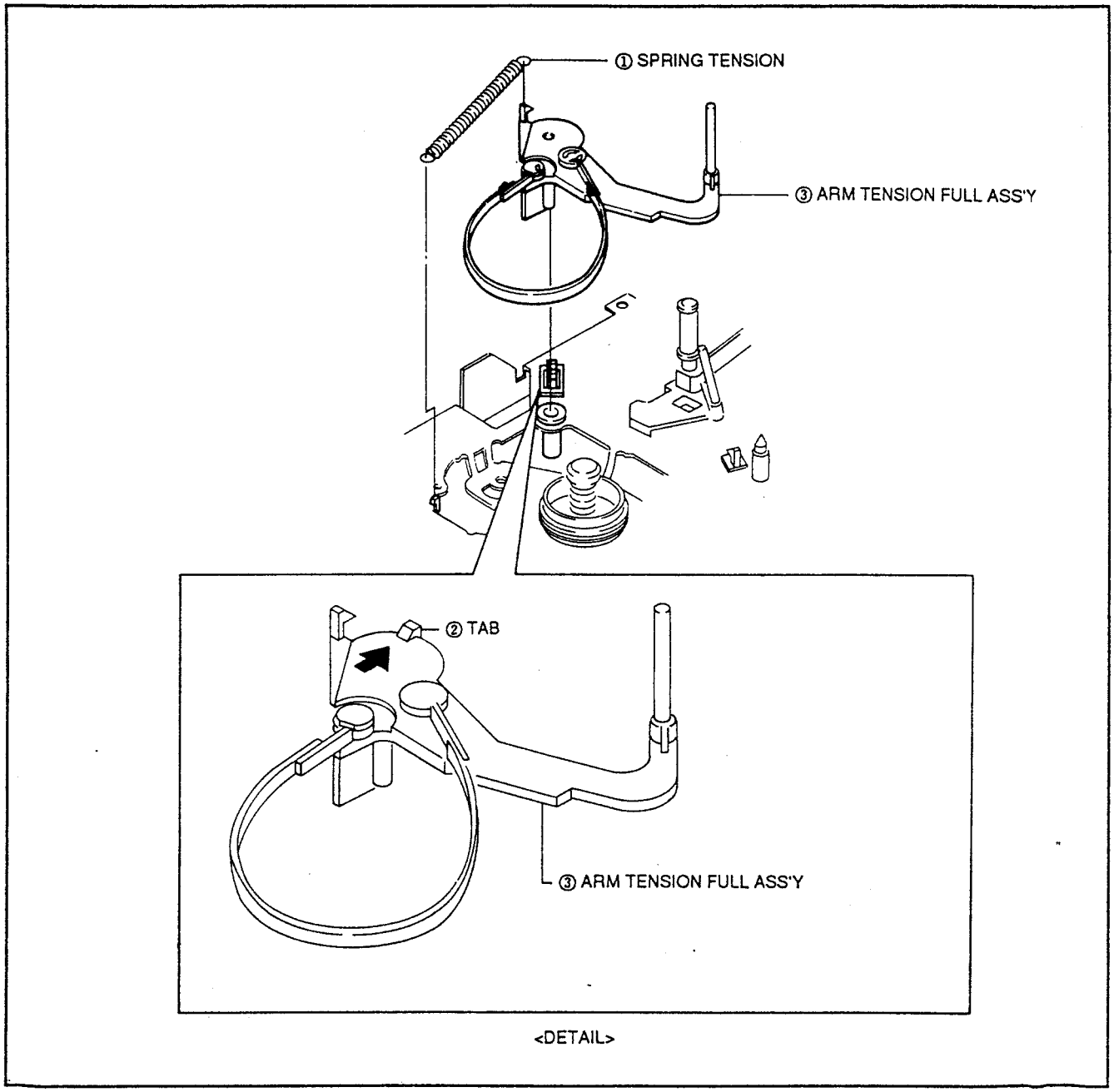


Fig. 23 Arm Tension Full Ass'y Removal

4-5. Lever JOG Ass'y Removal (Only for deck : DX6-R/DX6-RC)

1) Remove the one screw ①.
2) Lift the lever jog ass'y ②.

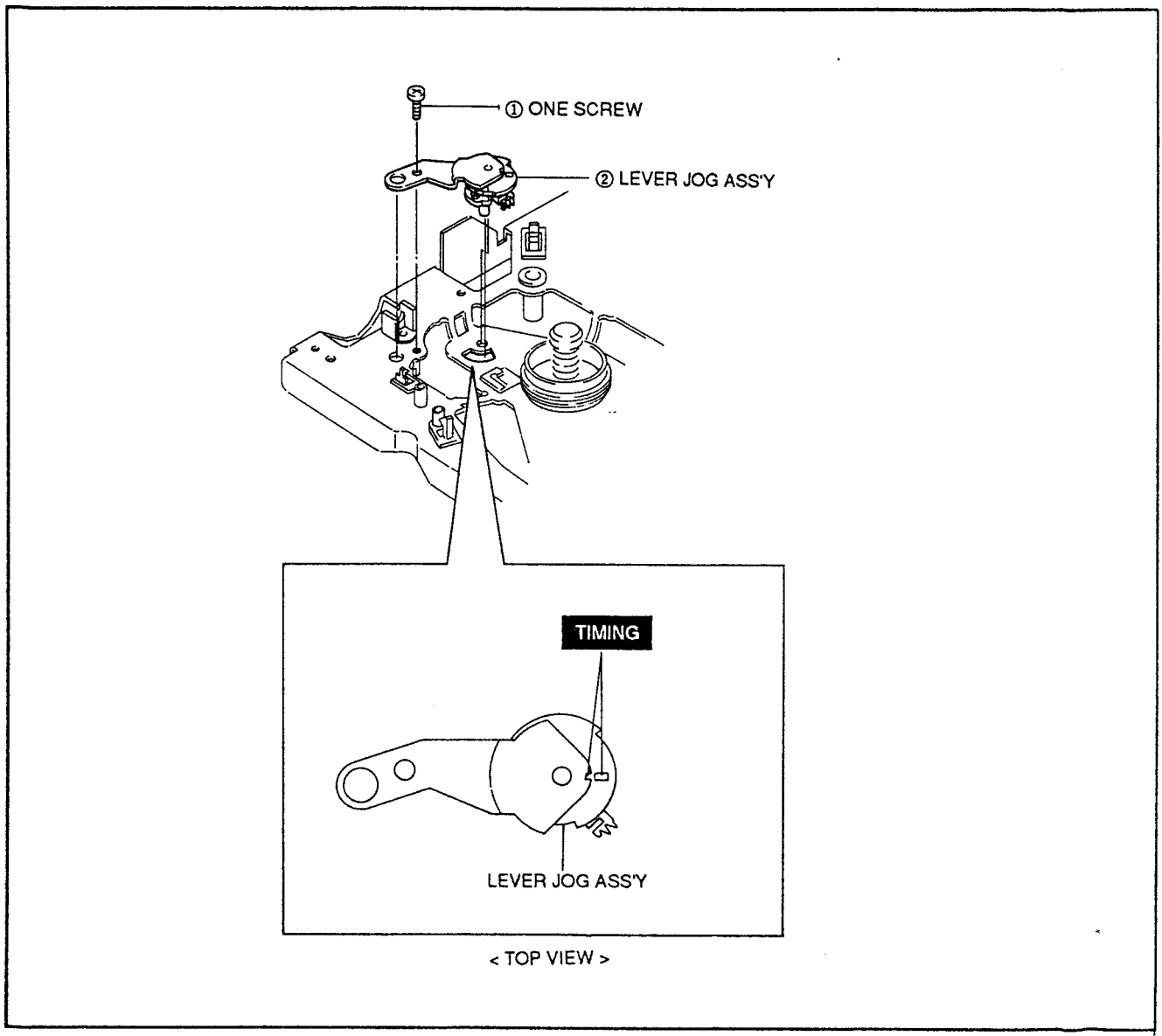


Fig. 24 Lever JOG Ass'y Removal

4-6. Reel Disk "L" Ass'y & Gear Relay "S" Ass'y Removal

1) Release the tab ① in the direction of arrow. (Refer to detail drawing)
2) Lift the reel disk "L" ass'y ②.
3) Remove the washer plain ③.
4) Remove the washer slit ④.
5) Lift the gear relay "S" ass'y ⑤.

NOTE : When reinstalling, be sure to install the reel disk "L" ass'y ② after installing the washer plain ③.

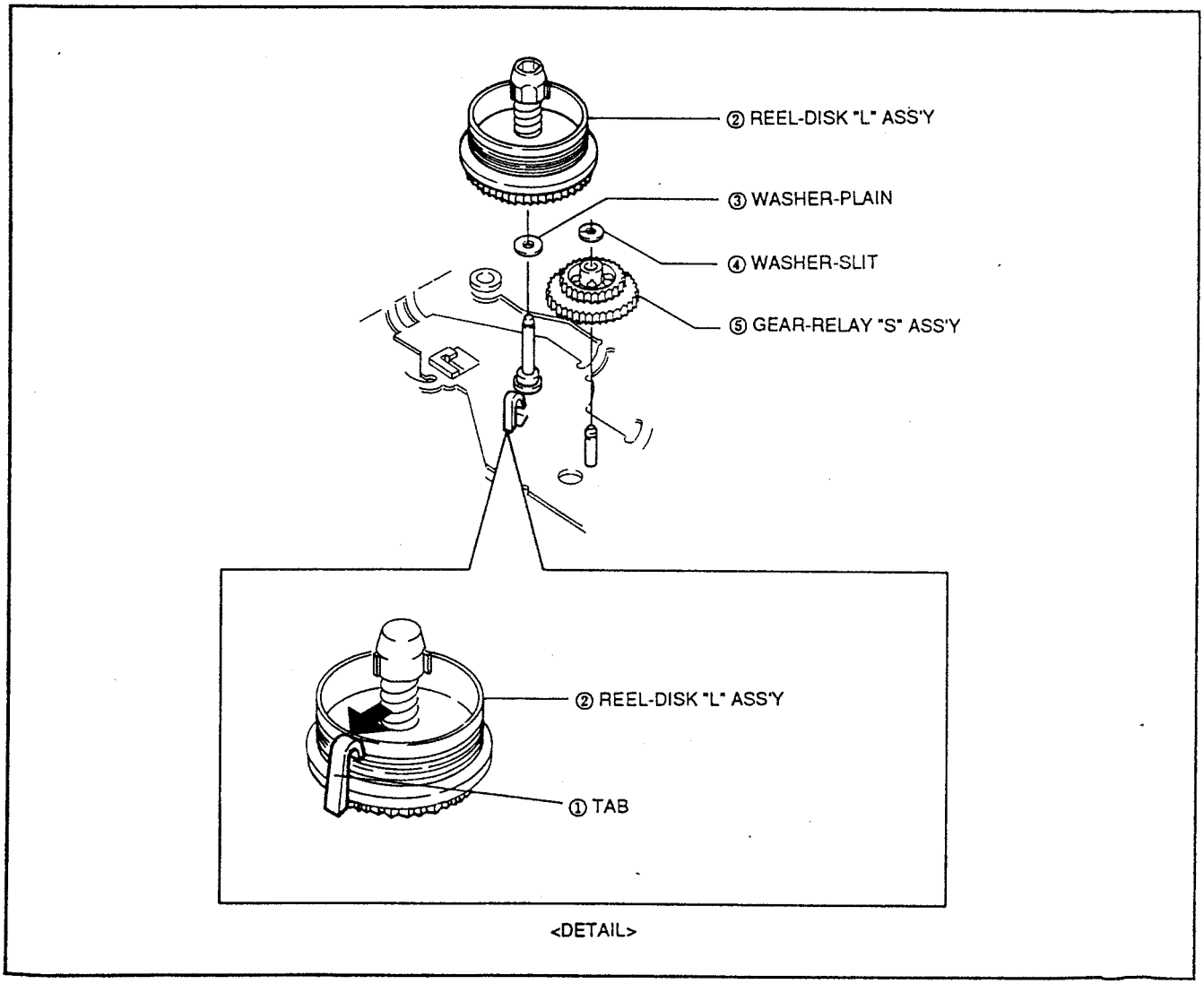


Fig. 25 Reel Disk "L" Ass'y & Gear Relay "S" Ass'y Removal

4-7. Brake Sub "R" Ass'y Removal

1) Remove the spring brake sub "R" ①.
2) Release the tab ② in the direction of arrow. (Refer to detail drawing)
3) Lift the brake sub "R" ass'y ③.

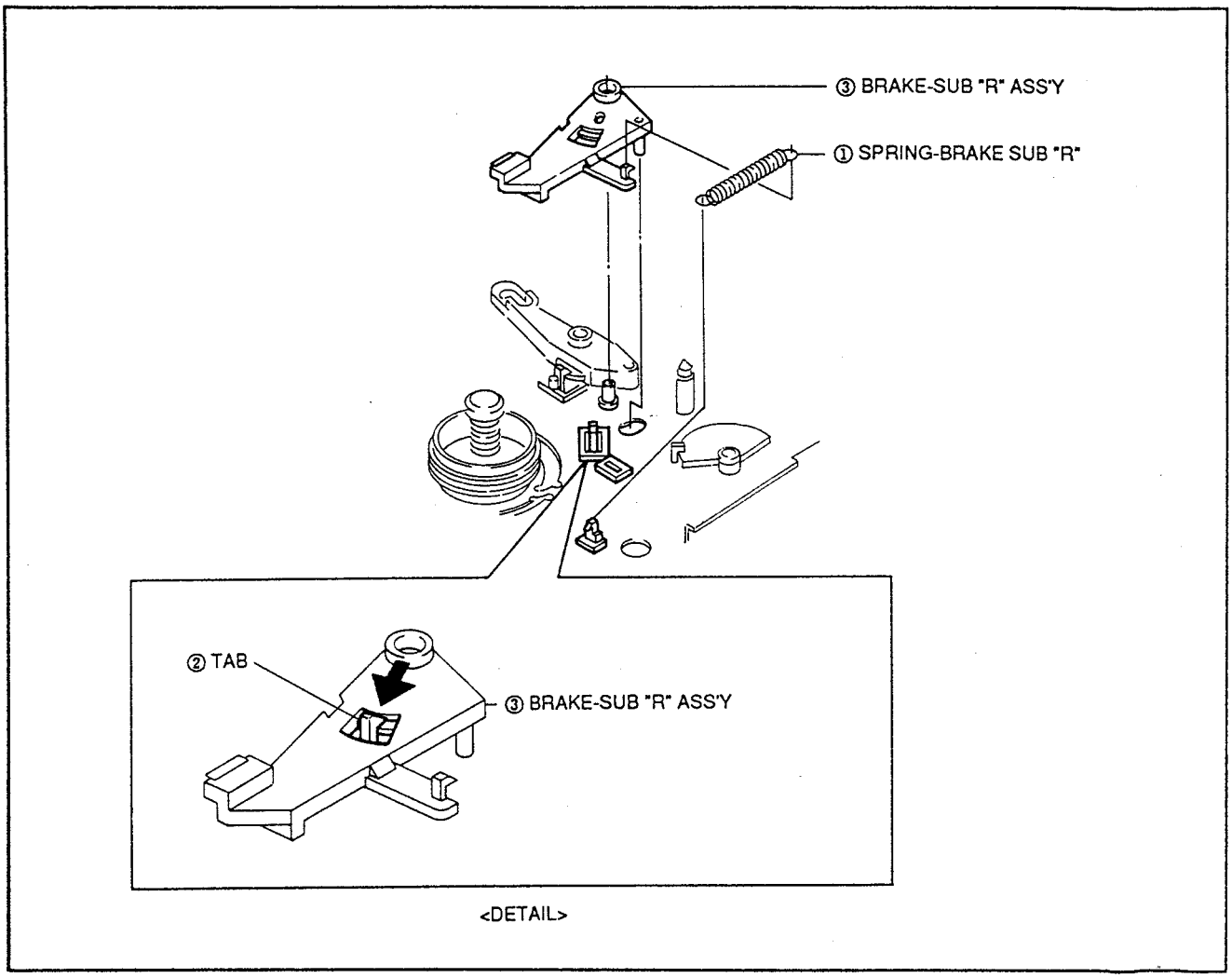


Fig. 26 Brake Sub "R" Ass'y Removal

4-8. Reel Disk "R" Ass'y & Gear Relay "T" Removal

1) Release the tab ① in the direction of arrow. (Refer to detail drawing)
2) Lift the reel disk "R" ass'y ②.
3) Remove the washer plain ③.
4) Remove the washer slit ④.
5) Lift the gear relay "T" ass'y ⑤.

NOTE : When reinstalling, be sure to install the reel disk "R" ass'y ② after installing the washer plain ③.

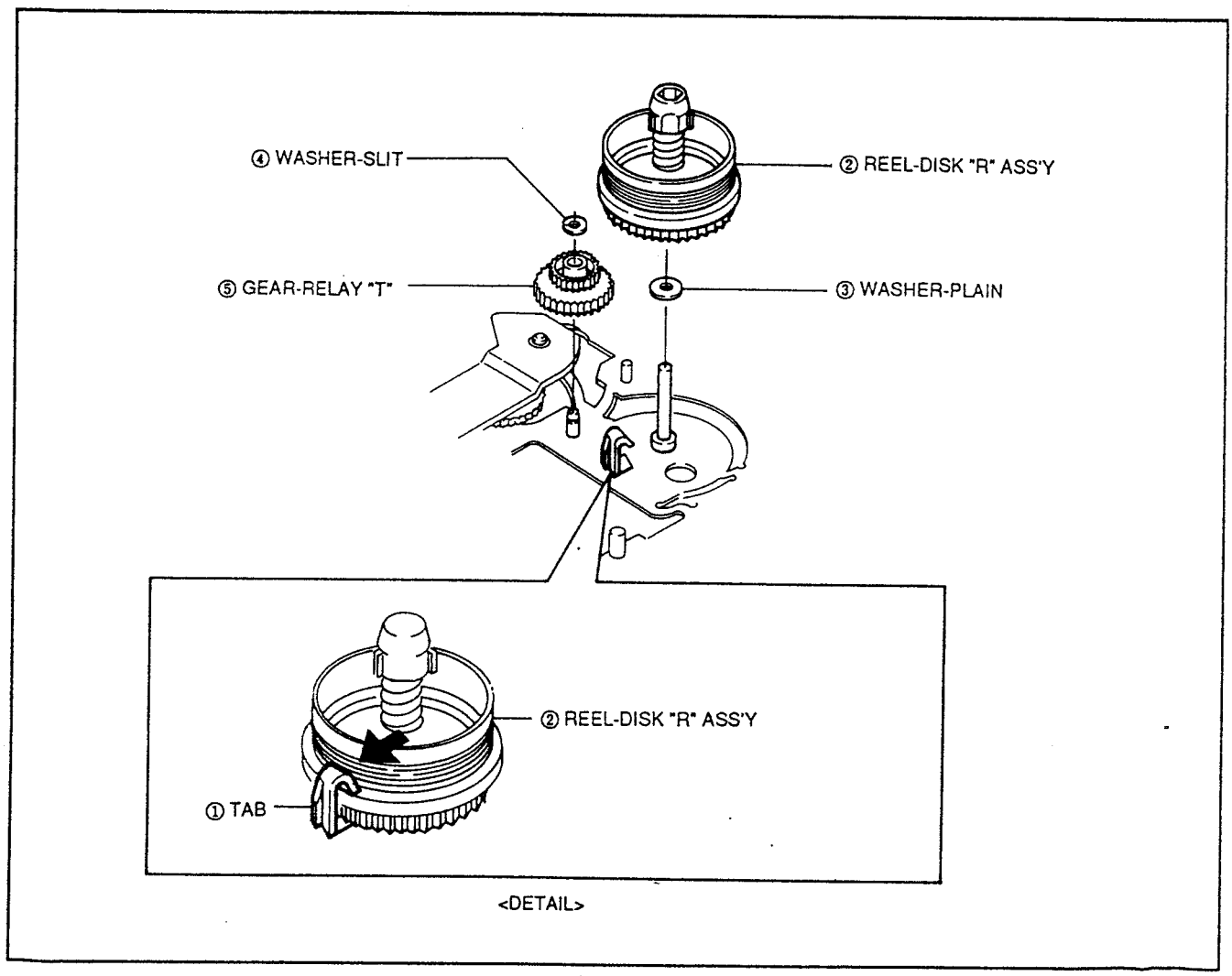


Fig. 27 Reel Disk "R" Ass'y & Gear Relay "T" Removal

4-9. Brake Main "L", "R" Ass'y Removal

1) Remove the spring brake main ①.
2) Release the tab ② in the direction of arrow "A". (Refer to detail drawing "A")
3) Lift the brake main "L" ③.
4) Release the tab ④ in the direction of arrow "B". (Refer to detail drawing "B")
5) Lift the brake main "R" ⑤.

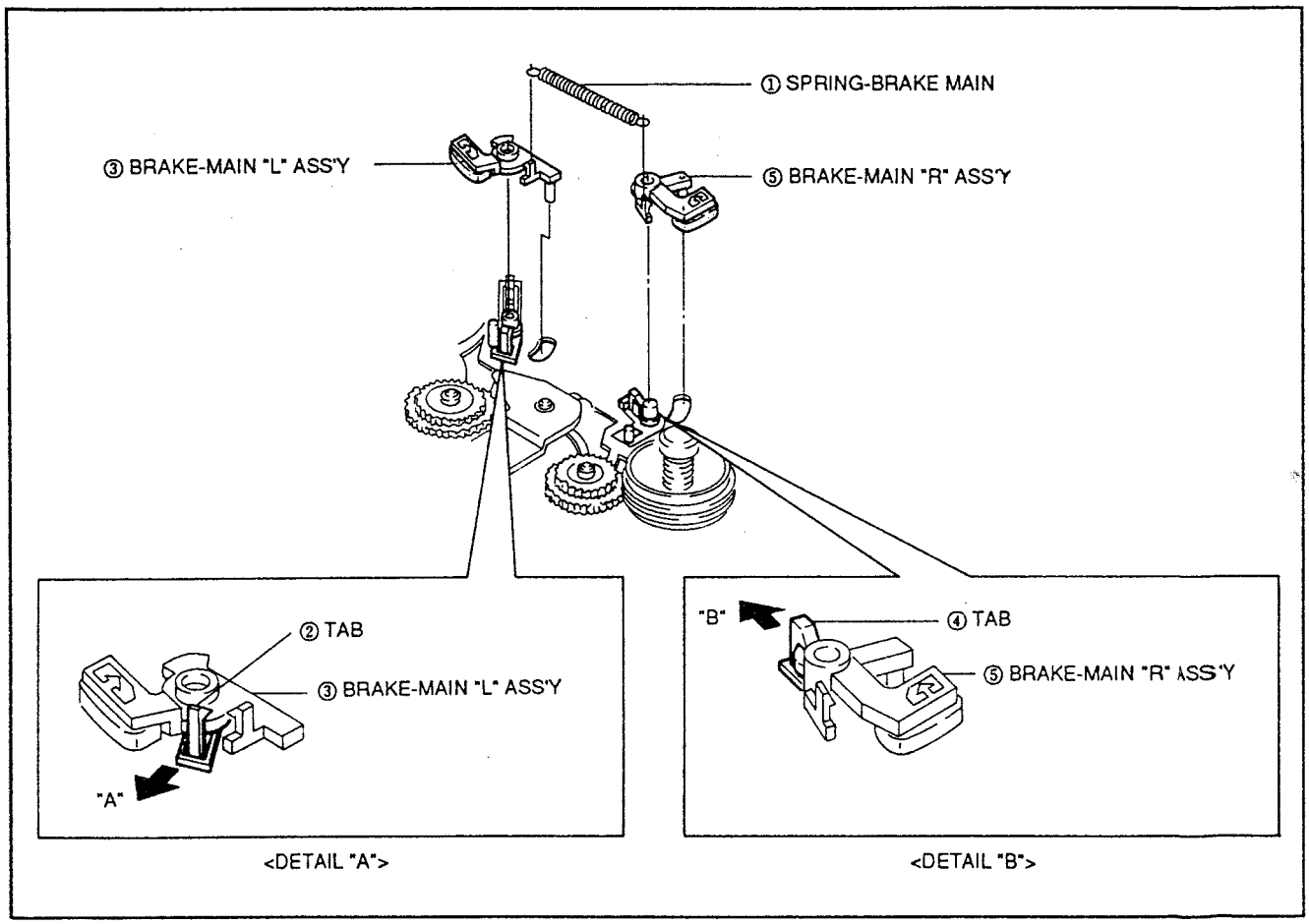


Fig. 28 Brake Main "L", "R" Ass'y Removal

4-10. Idler Ass'y Removal

1) Remove the washer slit ①.
2) Lift the idler ass'y ②.

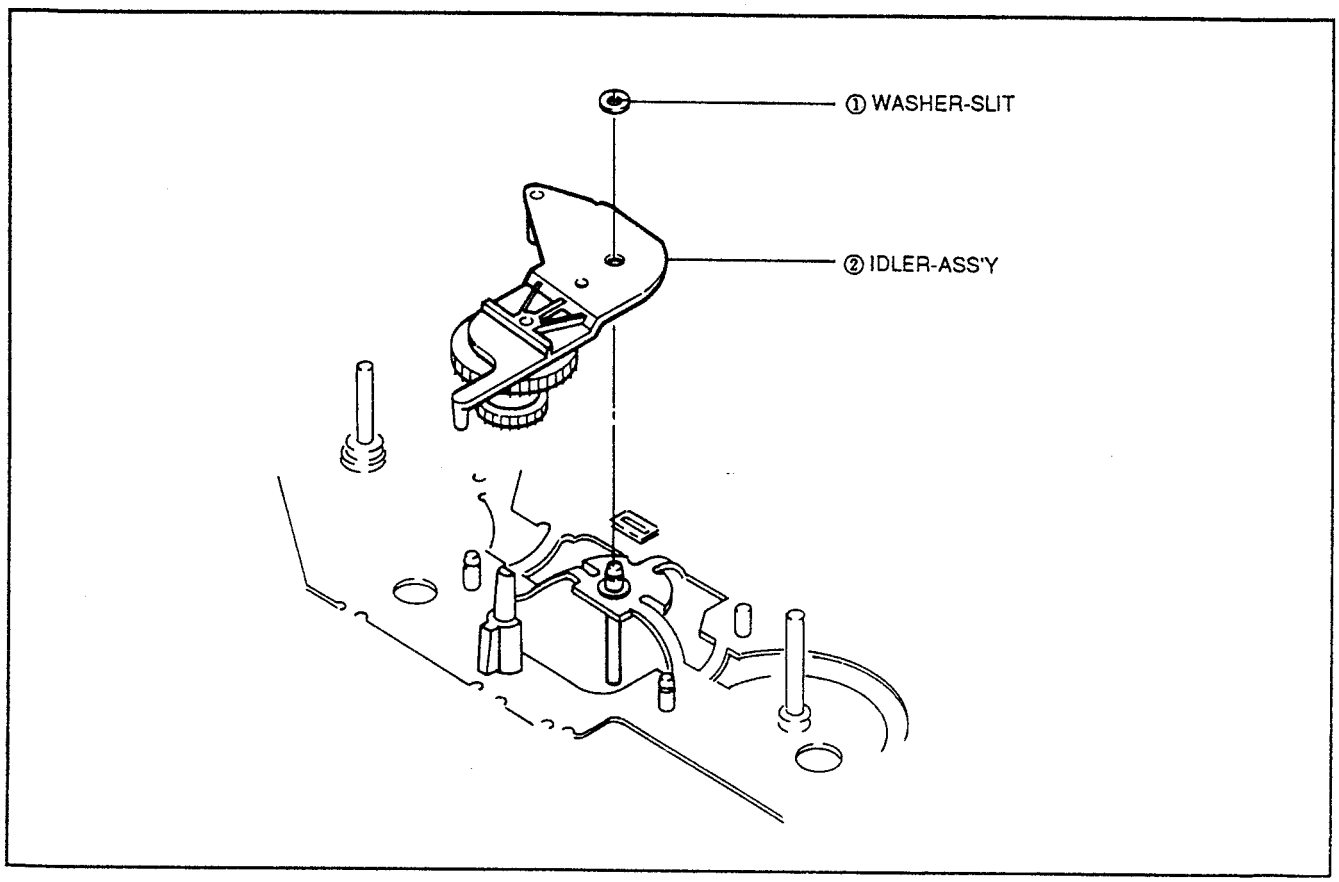


Fig. 29 Idler Ass'y Removal

4-11. Unit Pinch Roller Ass'y Removal

1) Remove the washer slit ①.
2) Lift the unit pinch roller ②.
3) Lift the spring arm pinch ③.

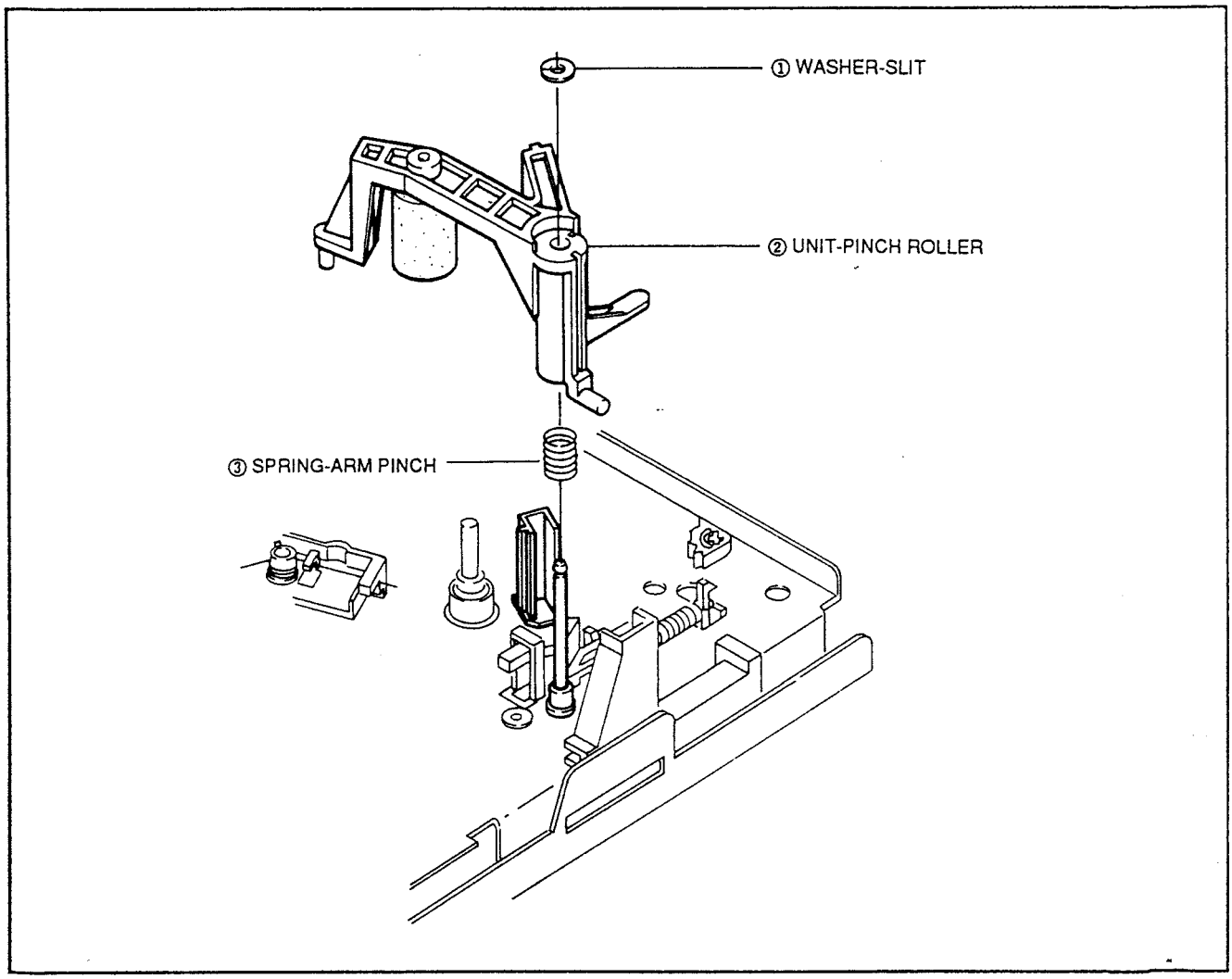


Fig. 30 Unit Pinch Roller Ass'y Removal

4-12. Assembly of Unit Pinch Roller

1) Install the unit pinch roller as shown in Fig. 31. (Refer to A, B)

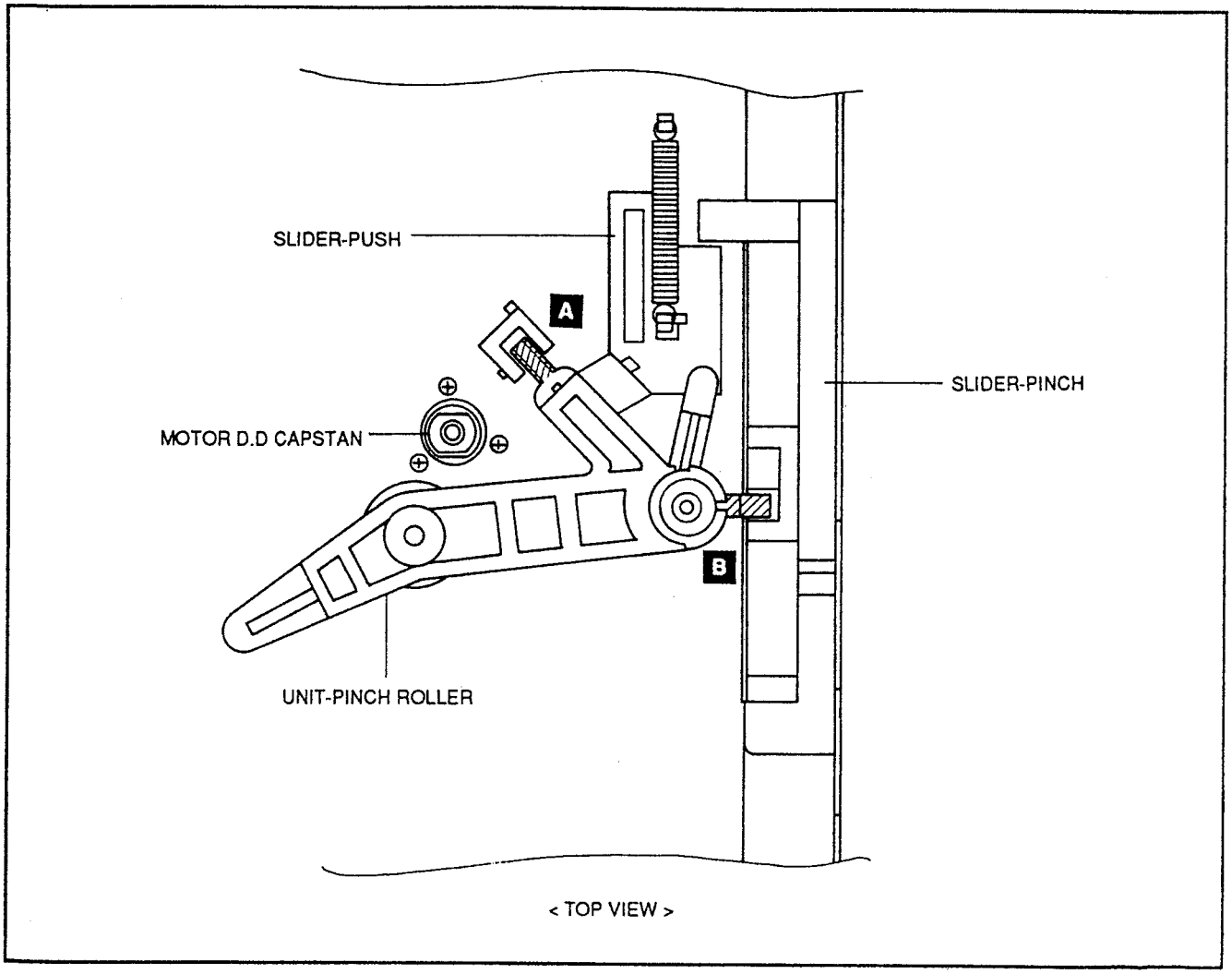


Fig. 31 Assembly of Unit Pinch Roller

4-13. Exploded View of Lever Pinch Comp Ass'y, Lever Pinch Cam, Arm Review Ass'y & Lever Review Ass'y

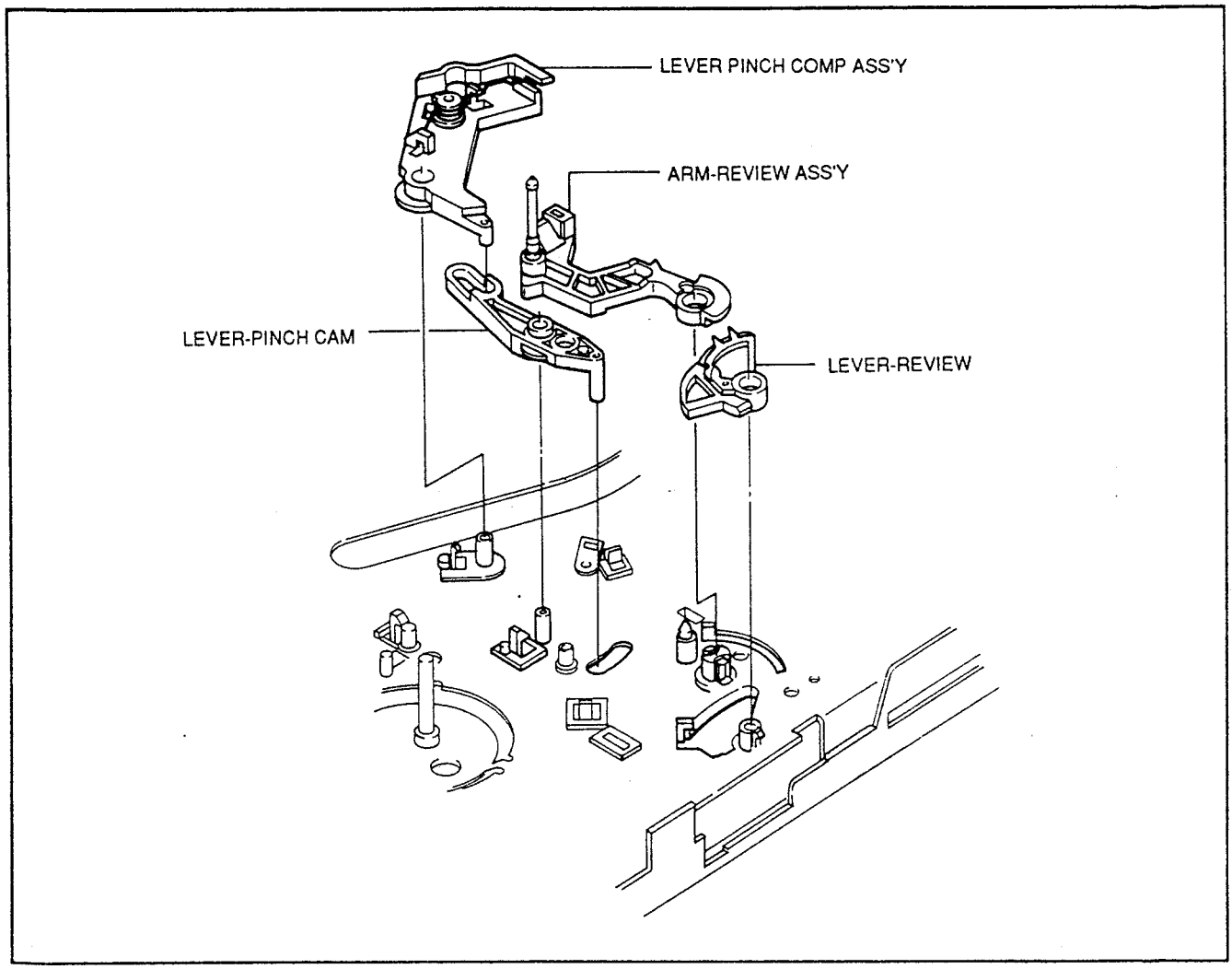


Fig. 32 Exploded View of Lever Pinch Comp Ass'y, Lever Pinch Cam, Arm Review Ass'y & Lever Review Ass'y

4-14. Lever Pinch Comp Ass'y Removal

1) Release the tab ① in the direction of arrow. (Refer to detail drawing)
2) Lift the lever pinch comp ass'y ②.

NOTE : Don't touch the lever pinch comp ass'y ① to audio head base during removal.

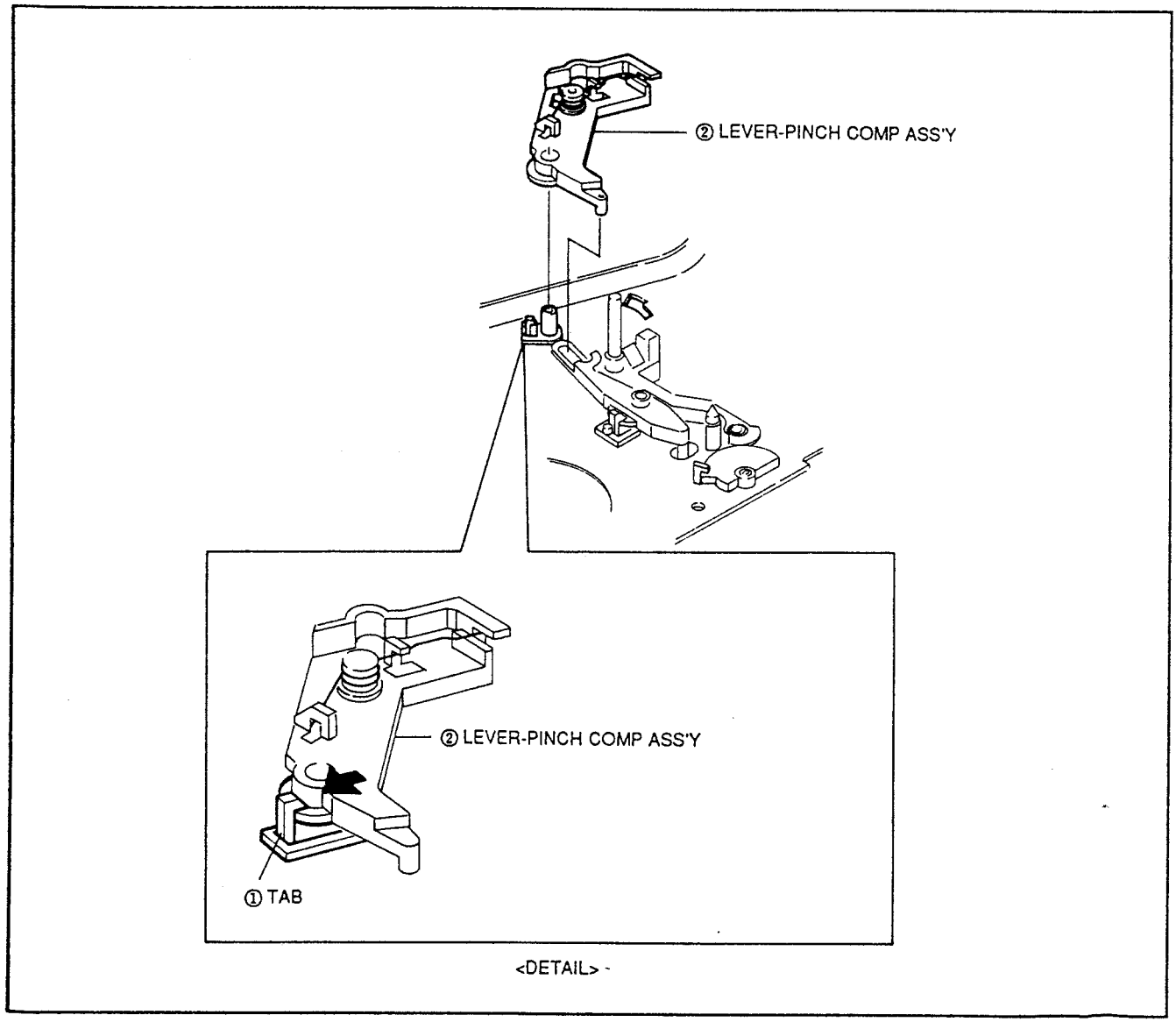


Fig. 33 Lever Pinch Comp Ass'y Removal

4-15. Lever Pinch Cam Removal

1) Release the tab ① in the direction of arrow. (Refer to detail drawing)
2) Lift the lever pinch cam ②.

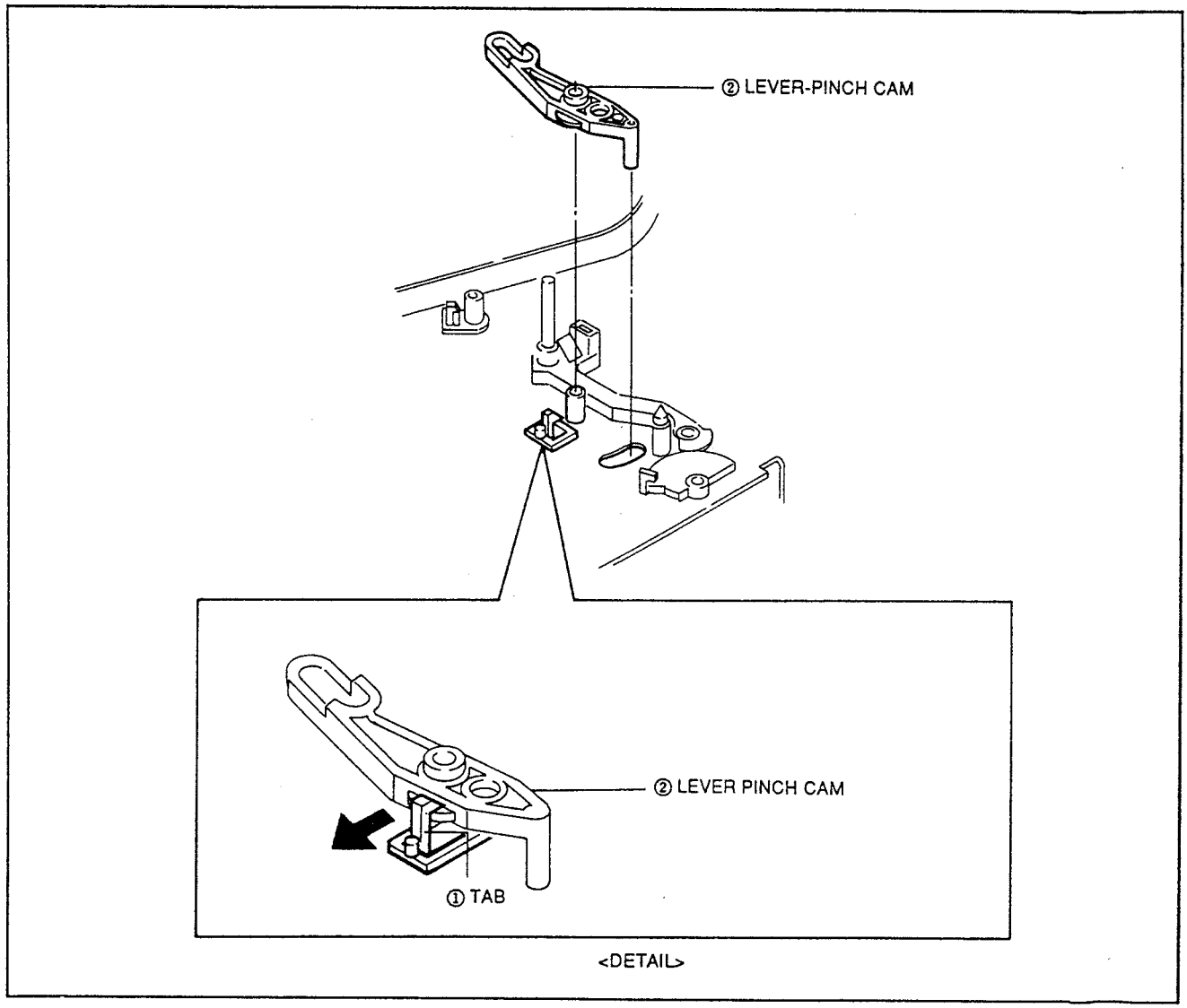


Fig. 34 Lever Pinch Cam Removal

4-16. Arm Review Ass'y Removal

1) Push the stopper tab ① in the direction of arrow.
2) Pull the arm review ass'y ② in the direction of arrow "A" and then confirm "B".
   (Refer to detail drawing "A")
3) Release the tab ③ in the direction of arrow and then lift the arm review ass'y ②.

NOTE : Take extreme care not to damage when removing the arm review ass'y ②.
(B part of detail drawing A)

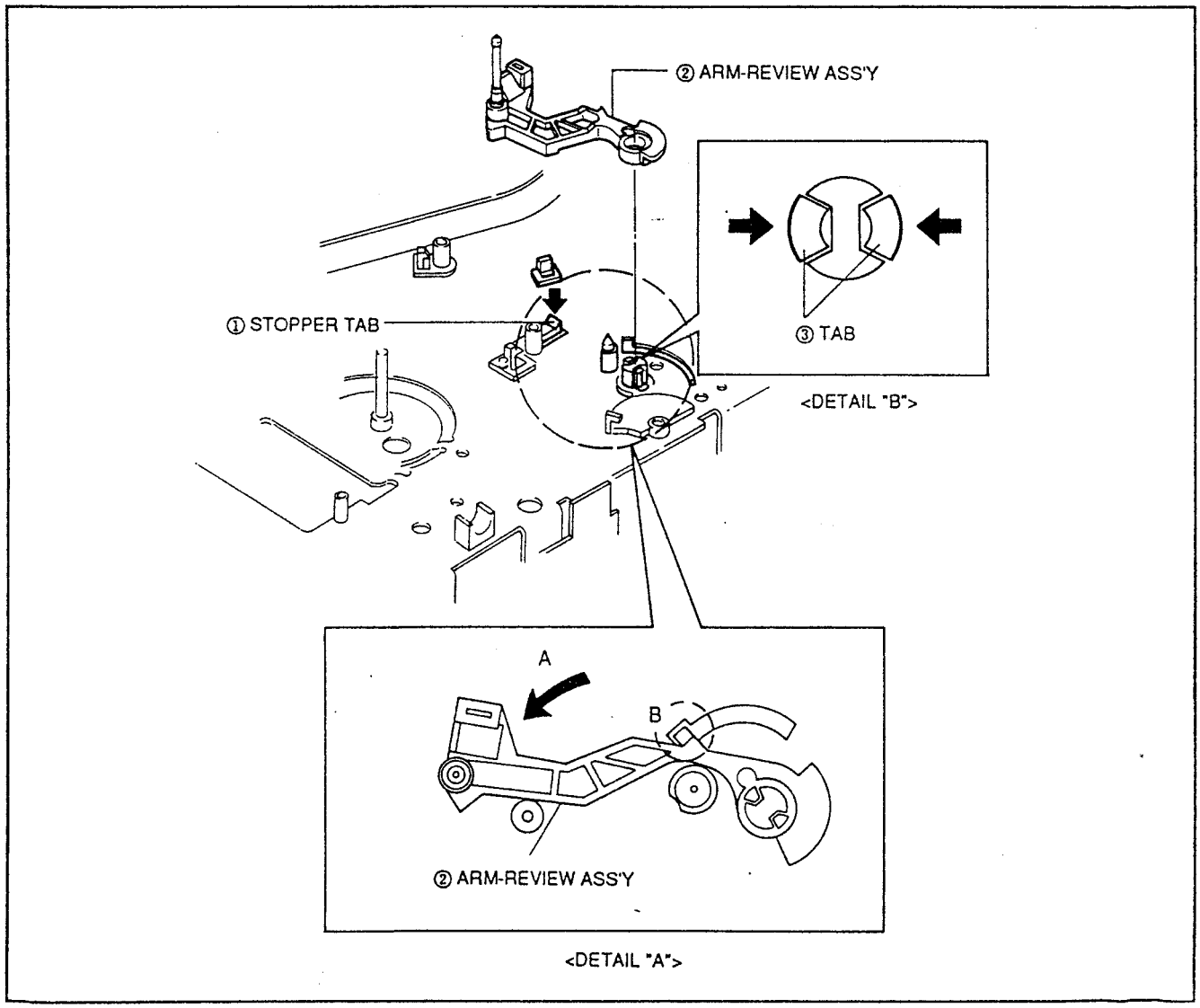


Fig. 35 Arm Review Ass'y Removal

4-17. Lever Review Removal

1) Release the tab ① in the direction of arrow. (Refer to detail drawing)
2) Lift the lever review ②.

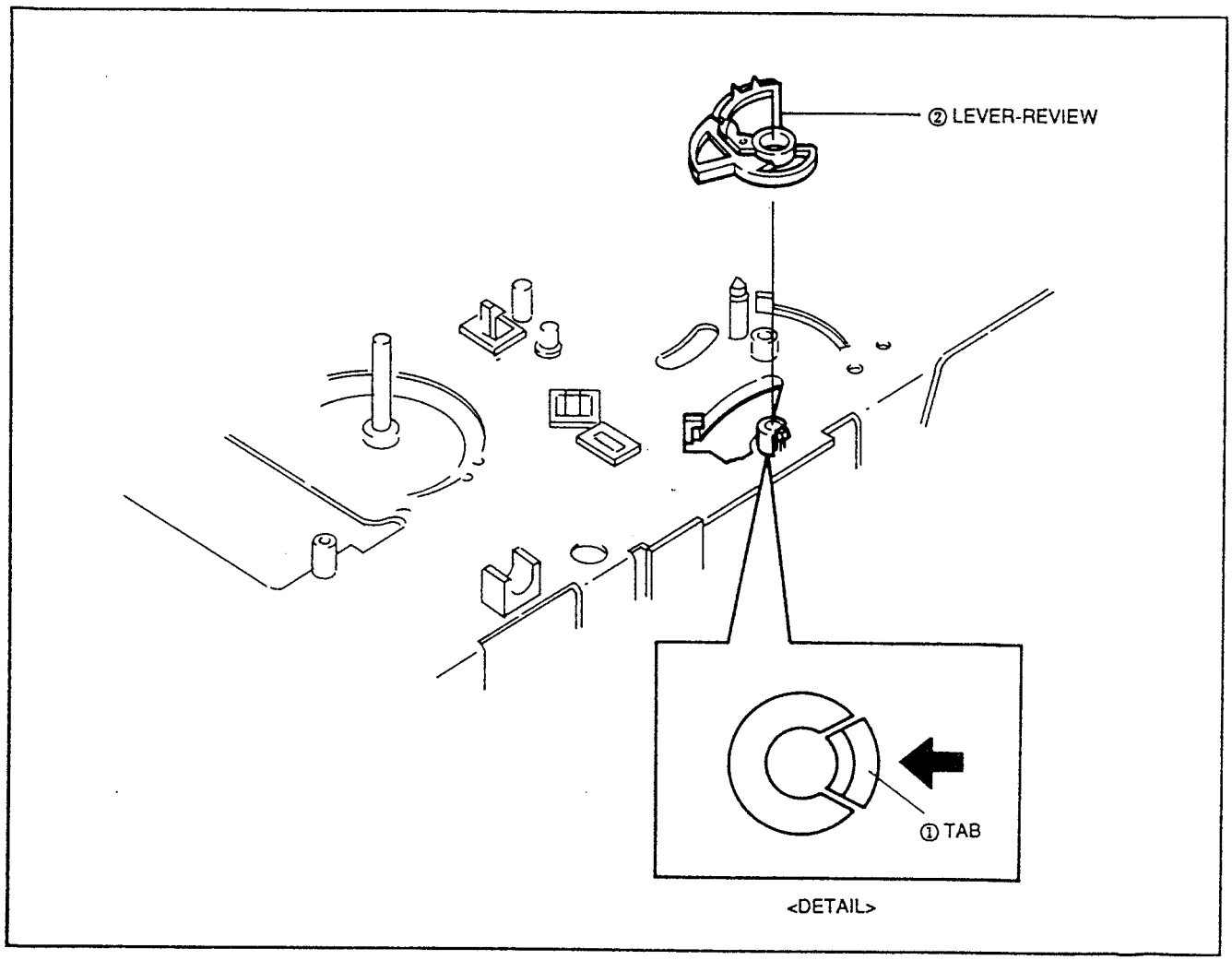


Fig. 36 Lever Review Removal

4-18. Belt Capstan Removal

1) Remove the belt capstan ①.

NOTE : Take extreme care not to touch the grease when removing or reinstalling.

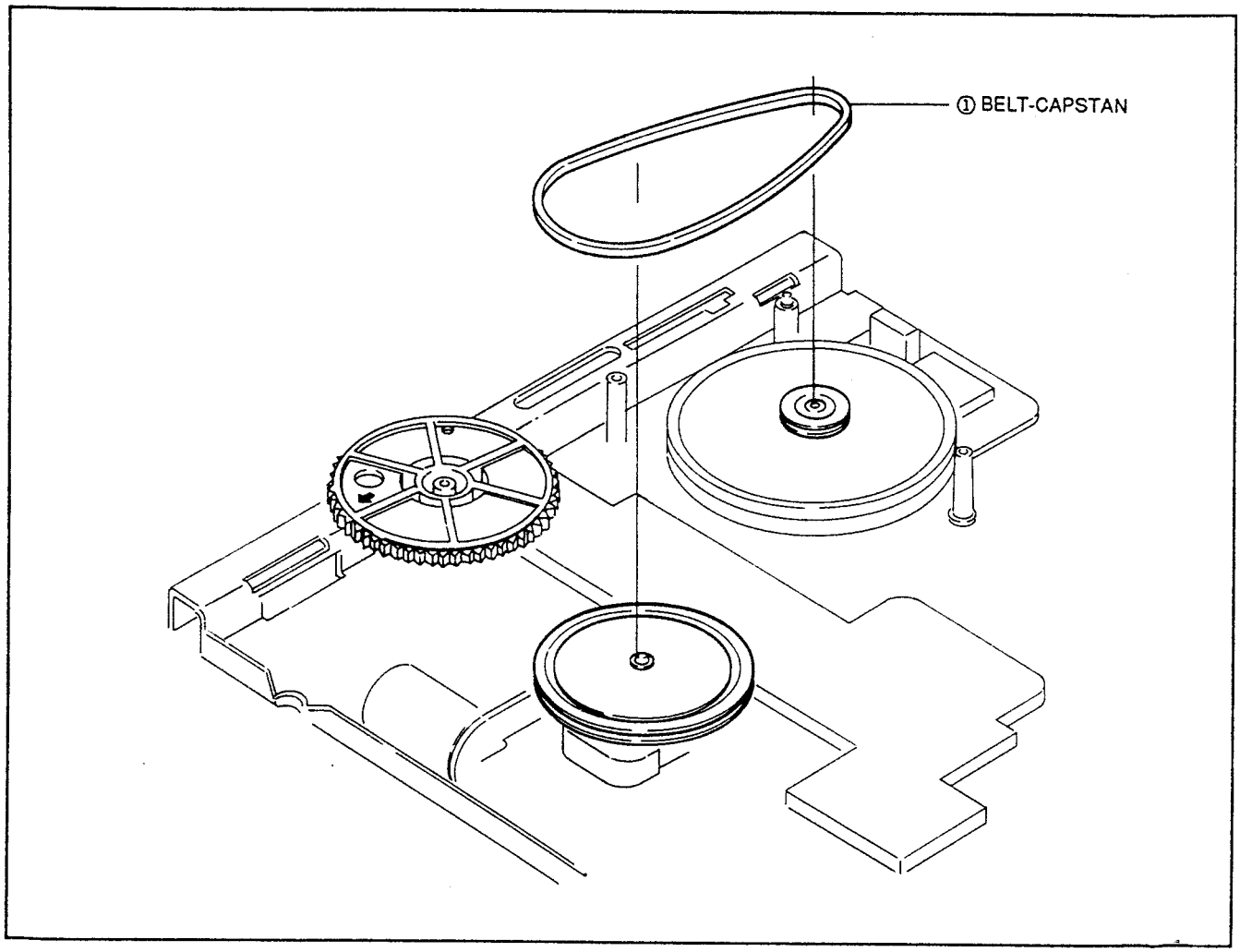


Fig. 37 Belt Capstan Removal

4-19. Brake Capstan Ass'y Removal

1) Remove the spring brake capstan ①.
2) Release the tab ② in the direction of arrow. (Refer to detail drawing)
3) Lift the brake capstan ass'y ③.

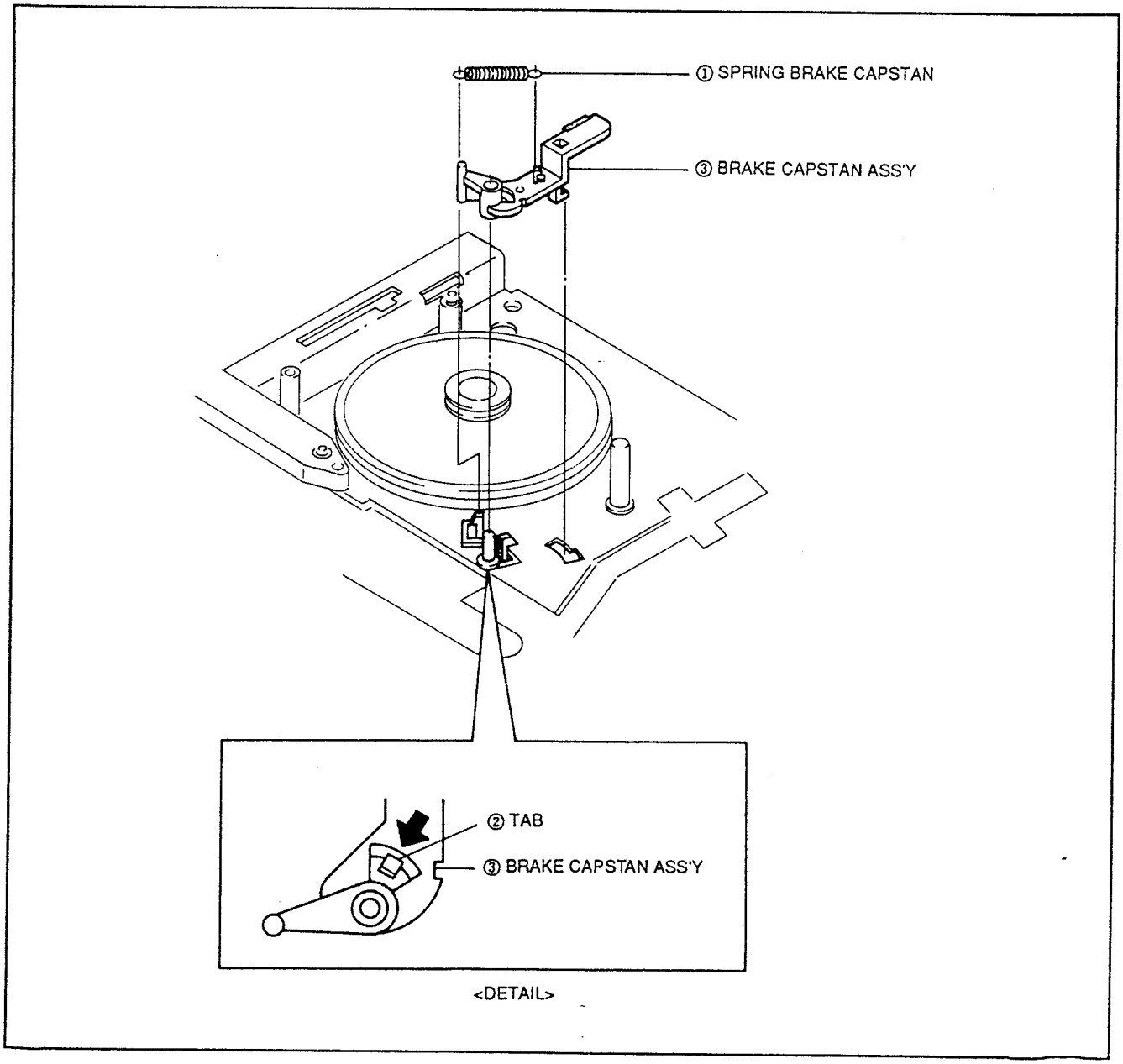


Fig. 38 Brake Capstan Ass'y Removal

4-20. Motor D.D Capstan Removal

1) Remove three(3) screws ①. (Top view)
2) Lift the motor D.D capstan ② in the direction of arrow. (Bottom view)

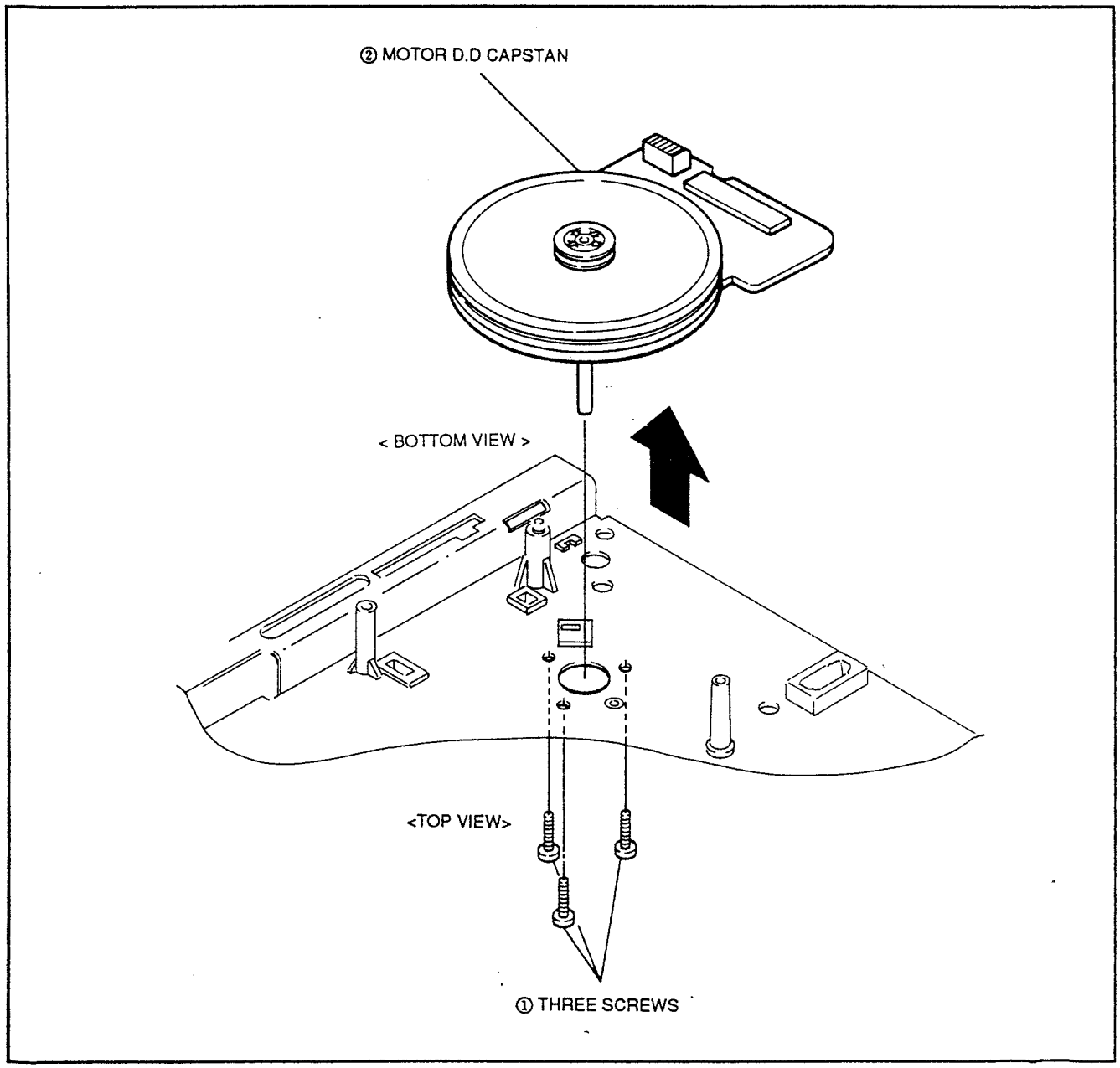


Fig. 39 Motor D.D Capstan Removal

4-21. Clutch Ass'y Removal

1) Remove the washer slit ①.
2) Lift the clutch ass'y ②.
3) Remove the washer plain ③.

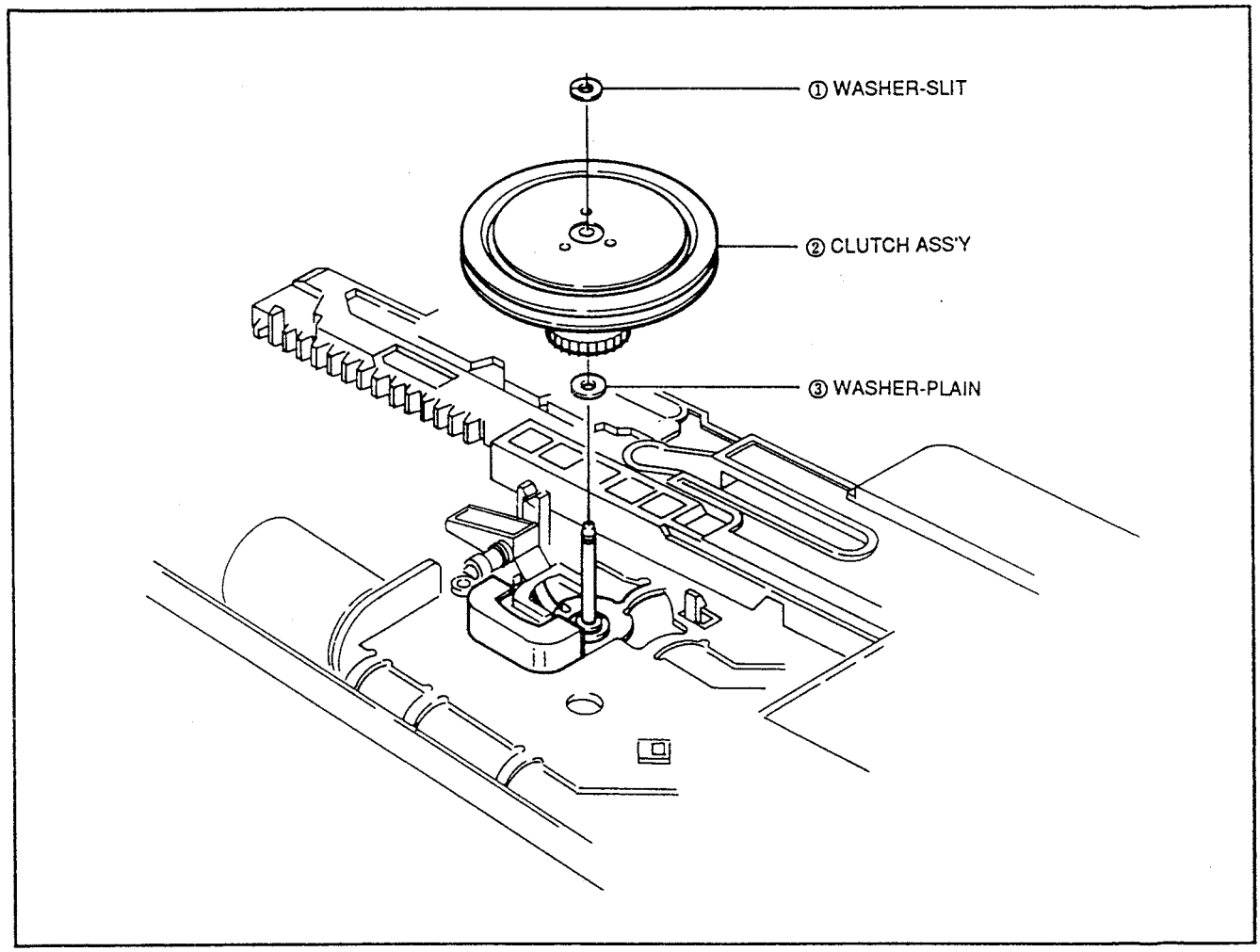


Fig. 40 Clutch Ass'y Removal

4-22. Gear Master Removal

1) Remove the washer slit ①.
2) Lift the gear master ②.

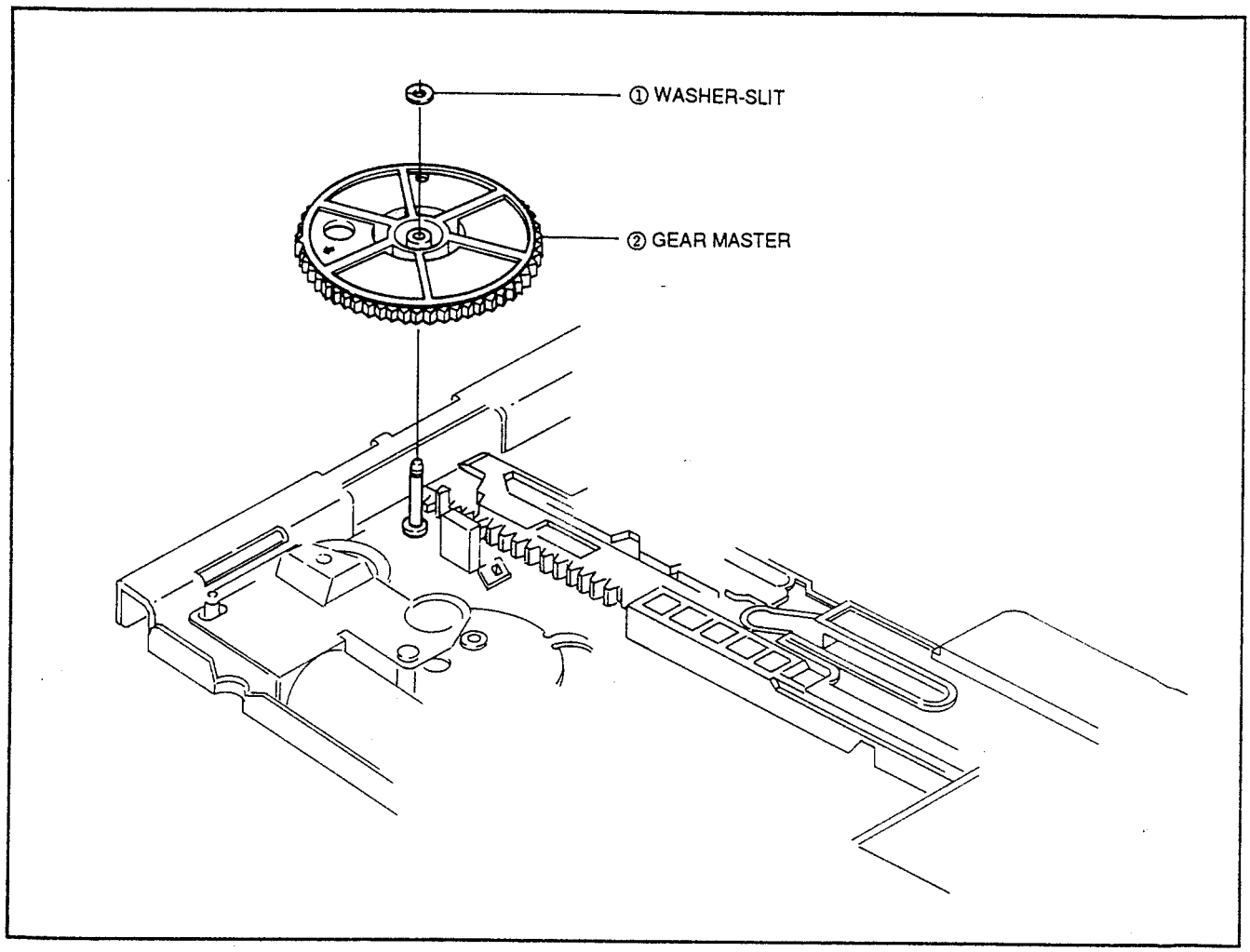


Fig. 41 Gear Master Removal

4-23. Assembly of Gear Master

1) When reinstalling, be sure to align the arrow mark of gear master ① with gear home of gear worm wheel ②. (Refer to timing point)

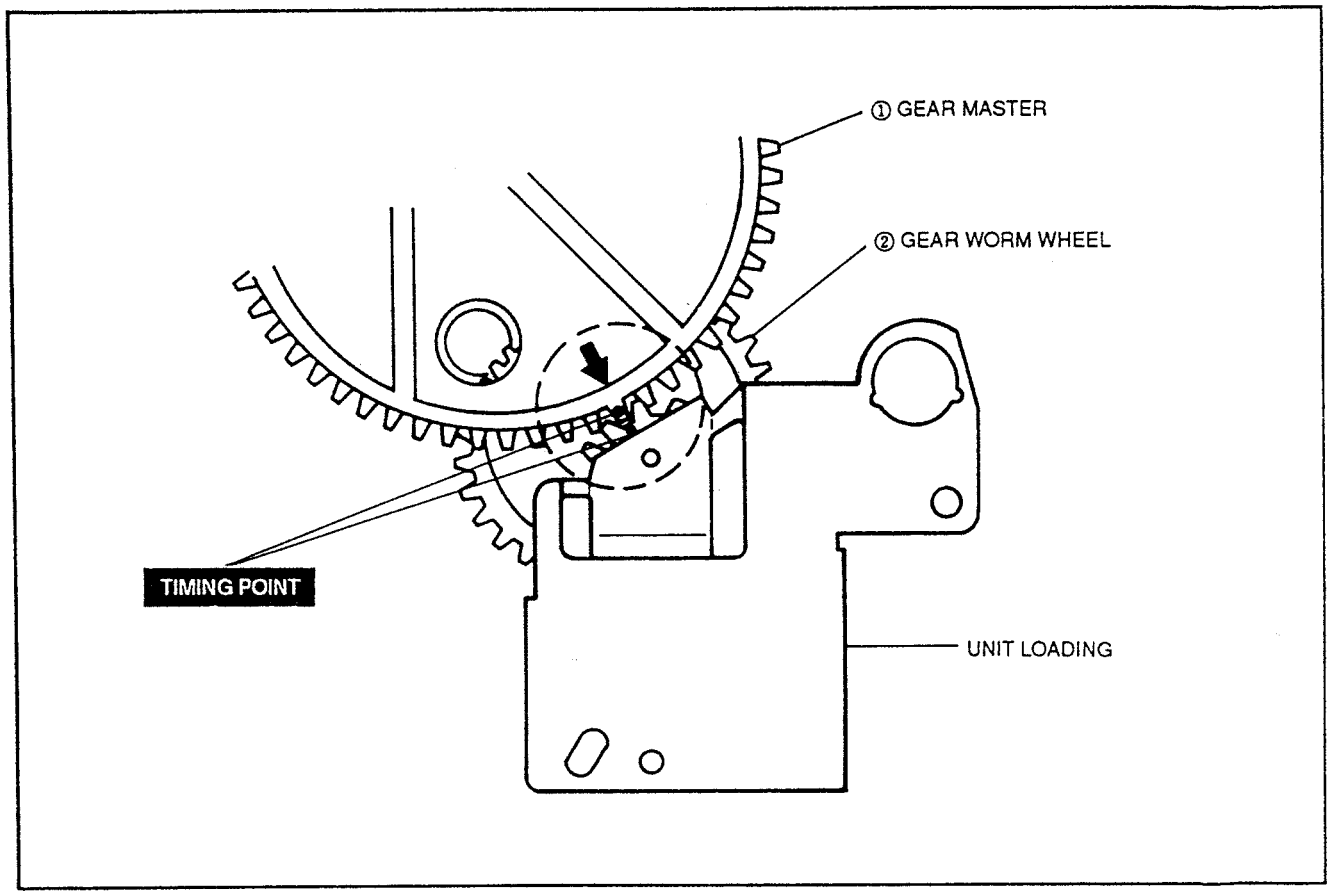


Fig. 42 Assembly of Gear Master

4-24. Unit Loading Removal

1) Remove two(2) screws ①.
2) Lift the unit loading ② in the direction of arrow.

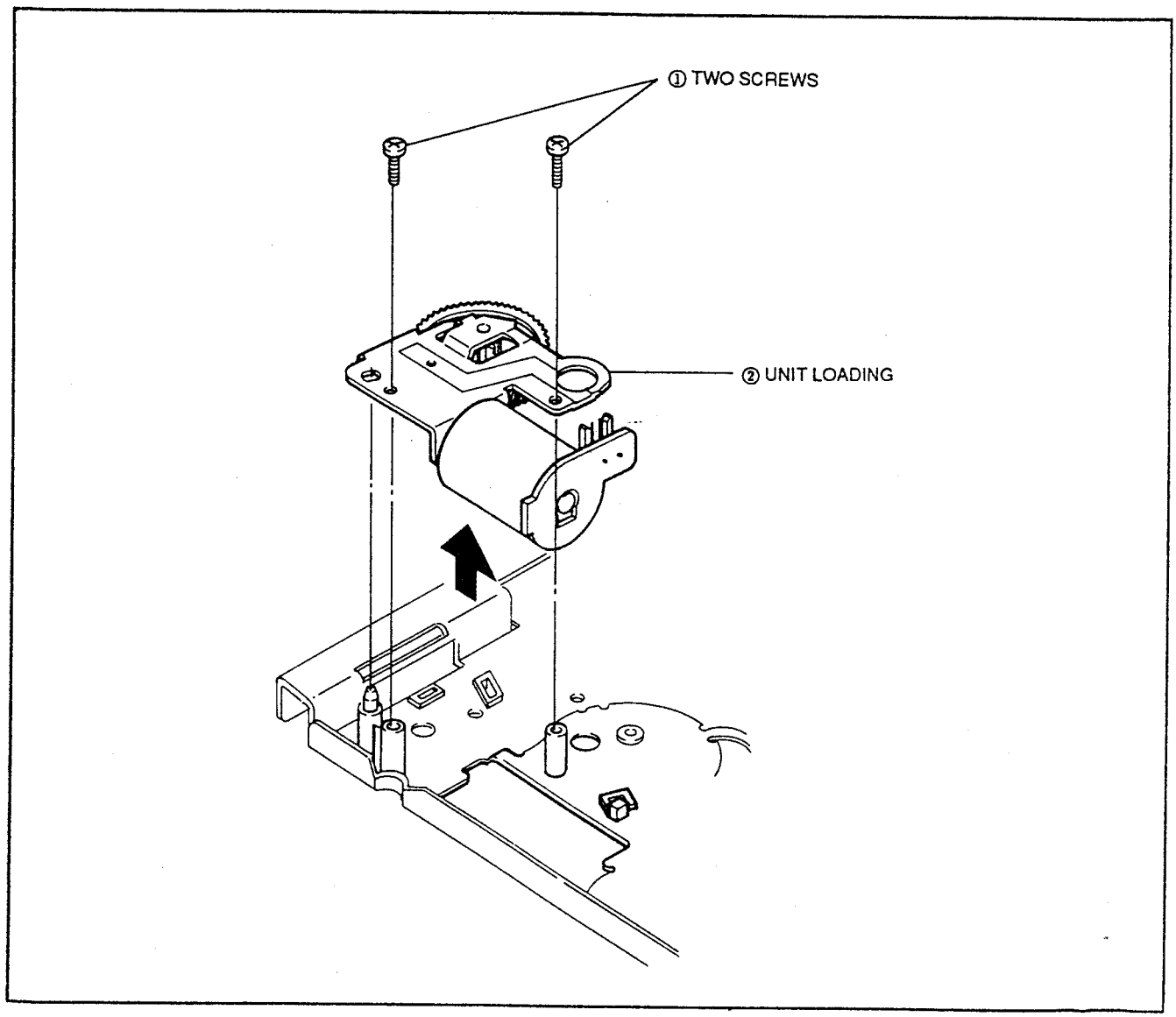


Fig. 43 Unit Loading Removal

4-25. Lever Slide Pinch Removal

1) Remove the washer slit ①.
2) Lift the lever slide pinch ②.

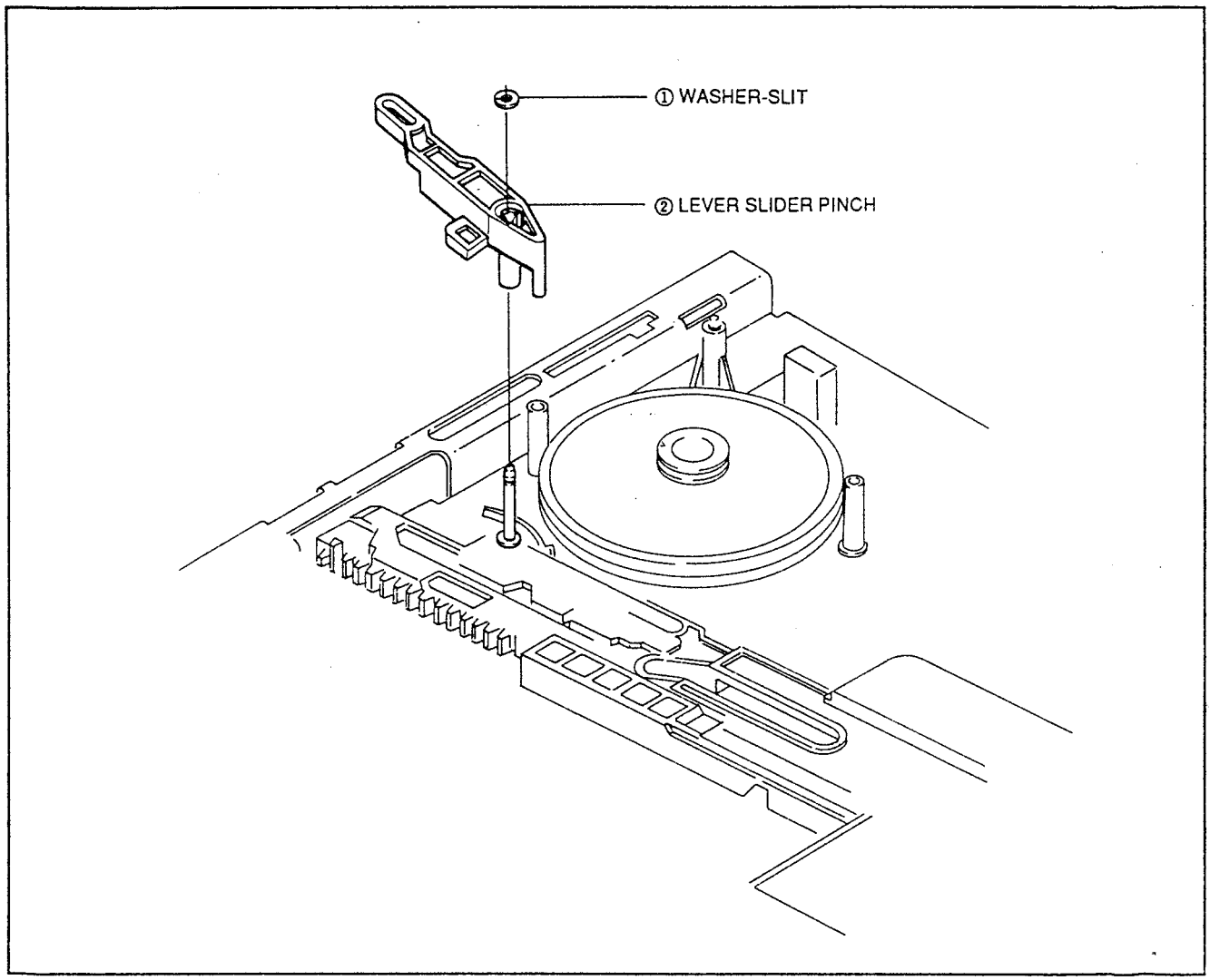


Fig. 44 Lever Slide Pinch Removal

4-26. Assembly of Lever Slide Pinch

1) Pull the slide pinch ① to the end in the direction of arrow.
2) Insert the slide pinch ① into the hole of lever slide pinch ②. (Refer to "A" part)

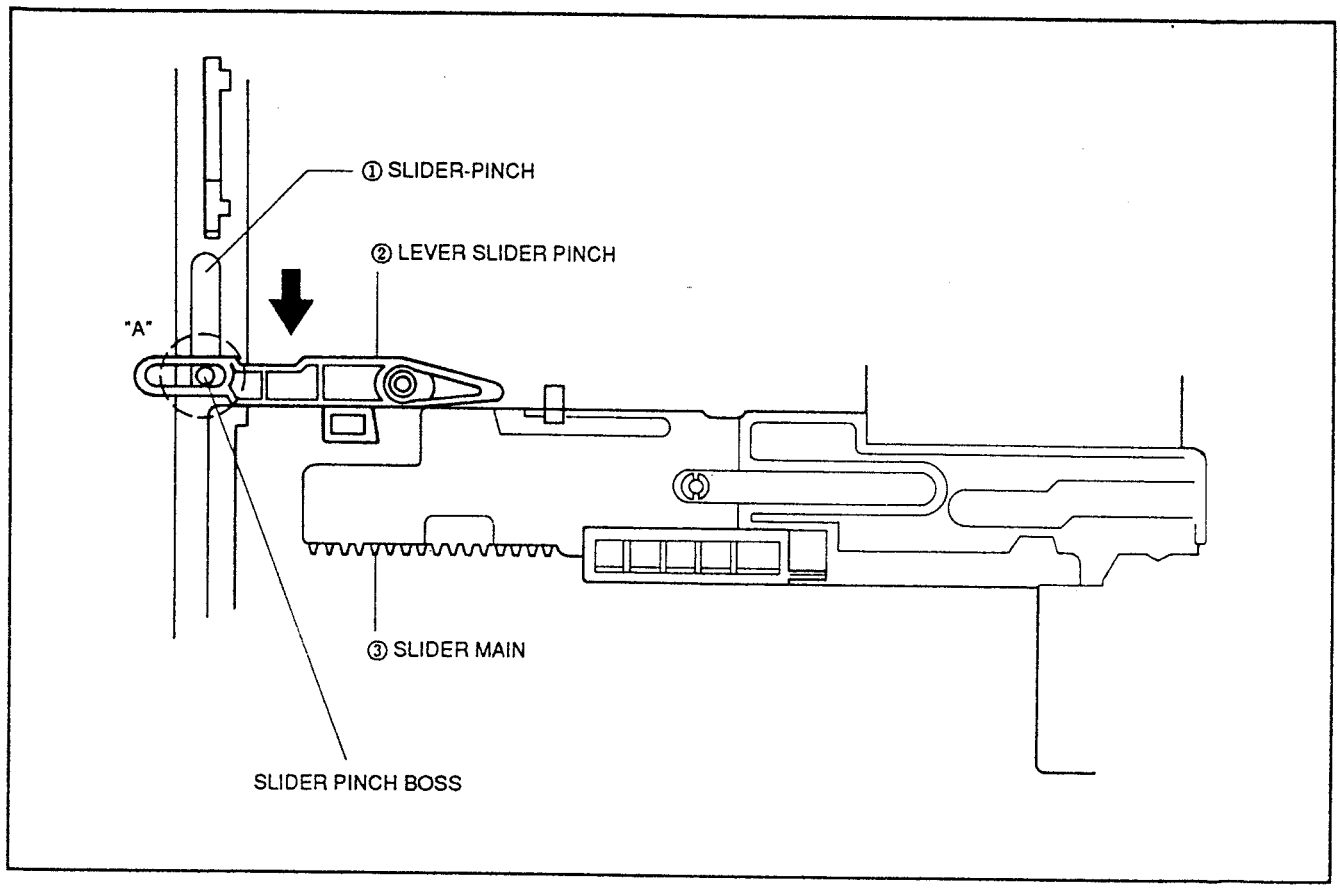


Fig. 45 Assembly of Lever Slide Pinch

4-27. Slide Main Removal

1) Remove the washer slit ①.
2) Release three(3) tabs ②, ③, ④ in the direction of arrow.
3) Lift the slide main ⑤.

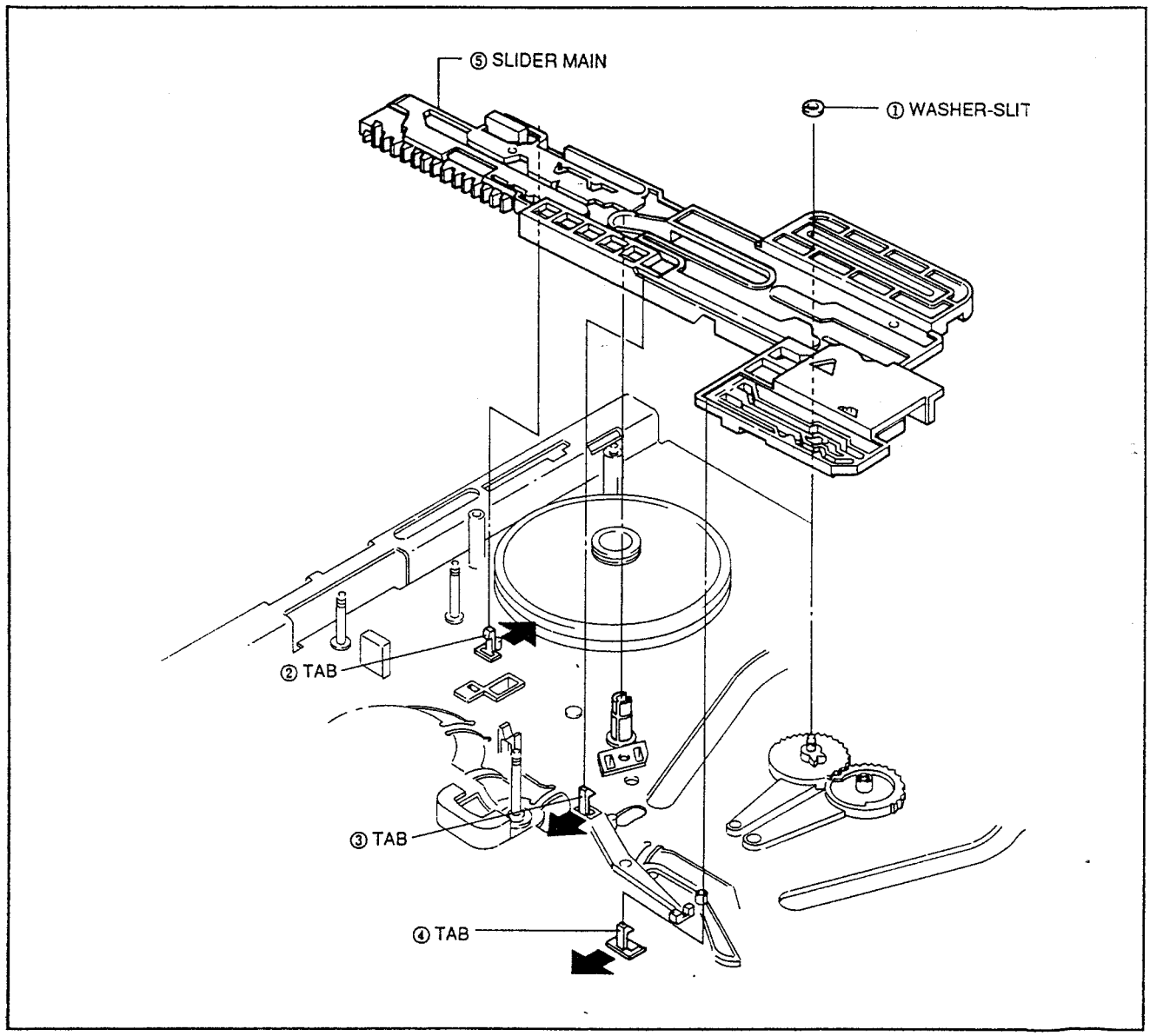


Fig. 46 Slide Main Removal

4-28. Assembly of Slide Main

1) Install the shaft of gear loading "R" ass'y into the left of the main slide hole and secure with the washer slit ②. (Refer to "A")
2) Insert the lever tension control ③ and the lever idler change ④ into the slide main hole. (Refer to "B")
3) After confirming the above items 1), 2) install the slide main and secure with tabs (a, b, c).

NOTE : Be sure to assemble the slide main when the gear loading L/R ass'y is in unloading position.

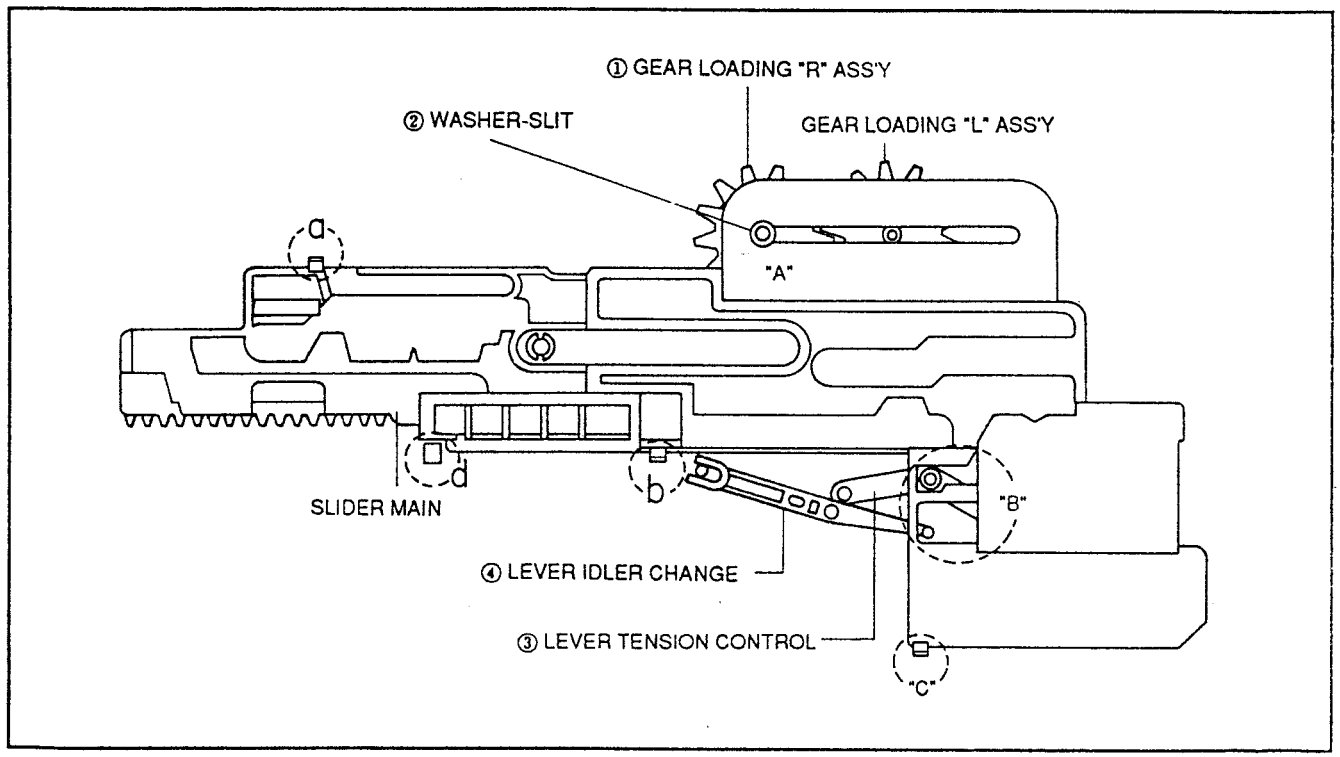


Fig. 47 Assembly of Slide Main

4-29. Lever Shift Ass'y Removal

1) Hang the spring lever shift ① to the claw of the lever shift ③. (Refer to detail drawings "A", "B")
2) Release the tab ② in the direction of arrow.
3) Lift the lever shift ③.

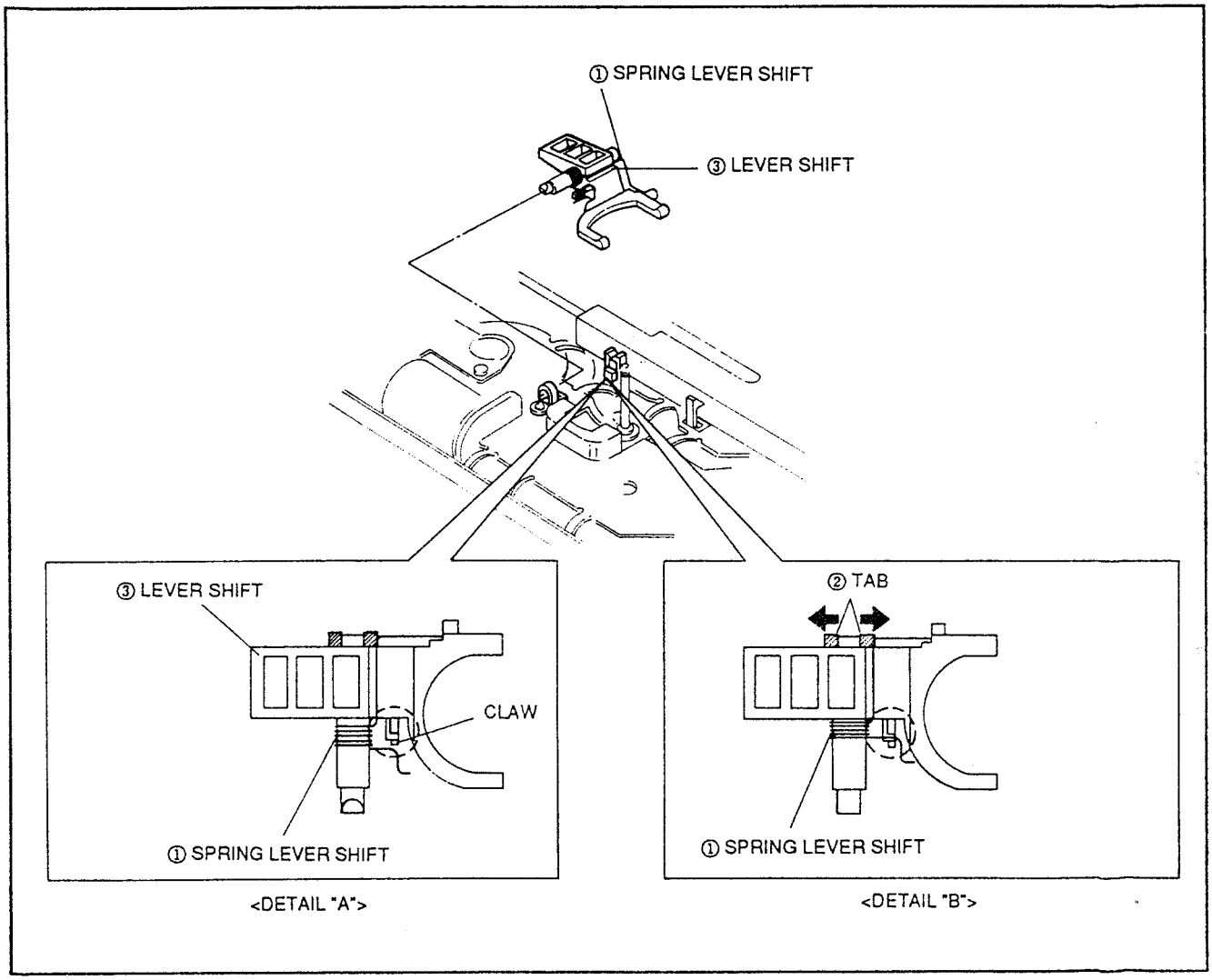


Fig. 48 Lever Shift Ass'y Removal

4-30. Lever Idler Change Removal

1) Release the tab ⓘ in the direction of arrow. (Refer to detail drawing)
2) Lift the lever idler change ②.

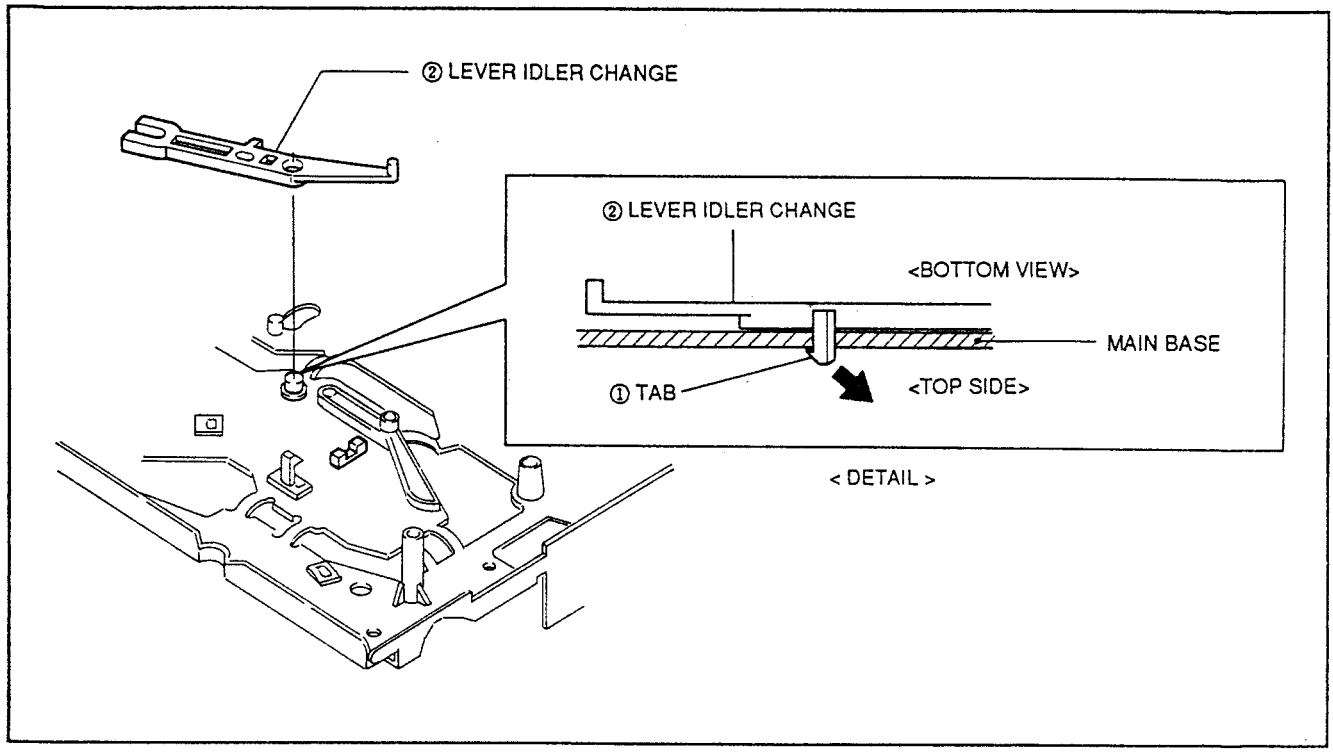


Fig. 48 Lever Idler Change Removal

4-31. Gear Loading "L", "R" Ass'y Removal

1) Remove the gear loading "R" ass'y ② from the slide guide roller "T" ③ by pushing the spring loading "R" ① in the direction of arrow. (Refer to detail drawing "A")
2) Remove the gear loading "L" ass'y ⑤ from the slide guide roller "S" ⑥ by pushing the spring loading "L" ④ in the direction of arrow. (Refer to detail drawing "B")
3) Lift the gear loading "R" ass'y ②.
4) Lift the gear loading "L" ass'y ⑤ by pushing the tab ⑦ of the gear loading "L" ass'y ⑤. (Refer to detail drawing "C")

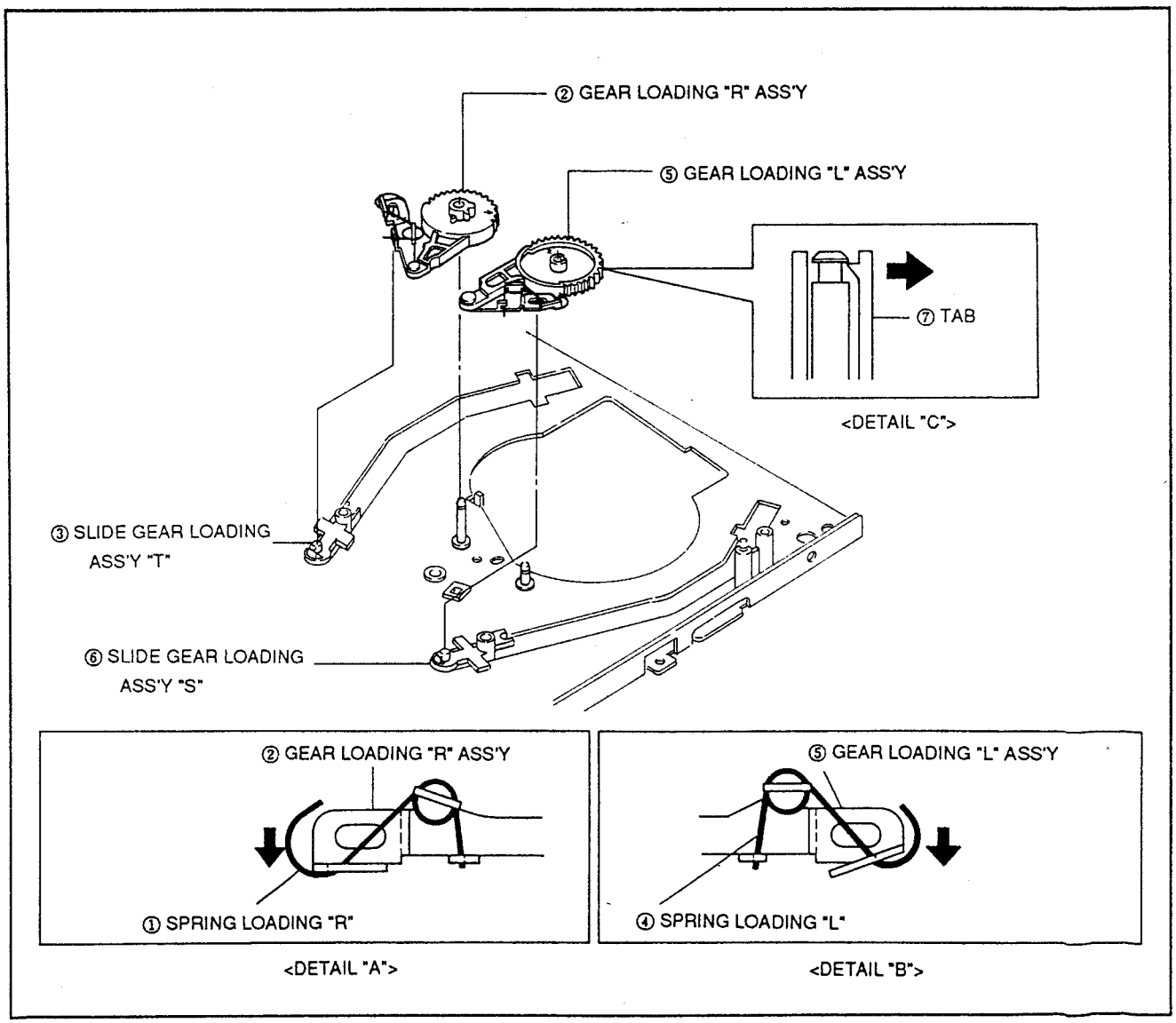


Fig. 50 Gear Loading "L", "R" Ass'y Removal

4-32. Assembly Gear Loading "L", "R" Ass'y

1) When reinstalling, be sure to align two arrows as shown in Fig. 51. (Refer to timing point)

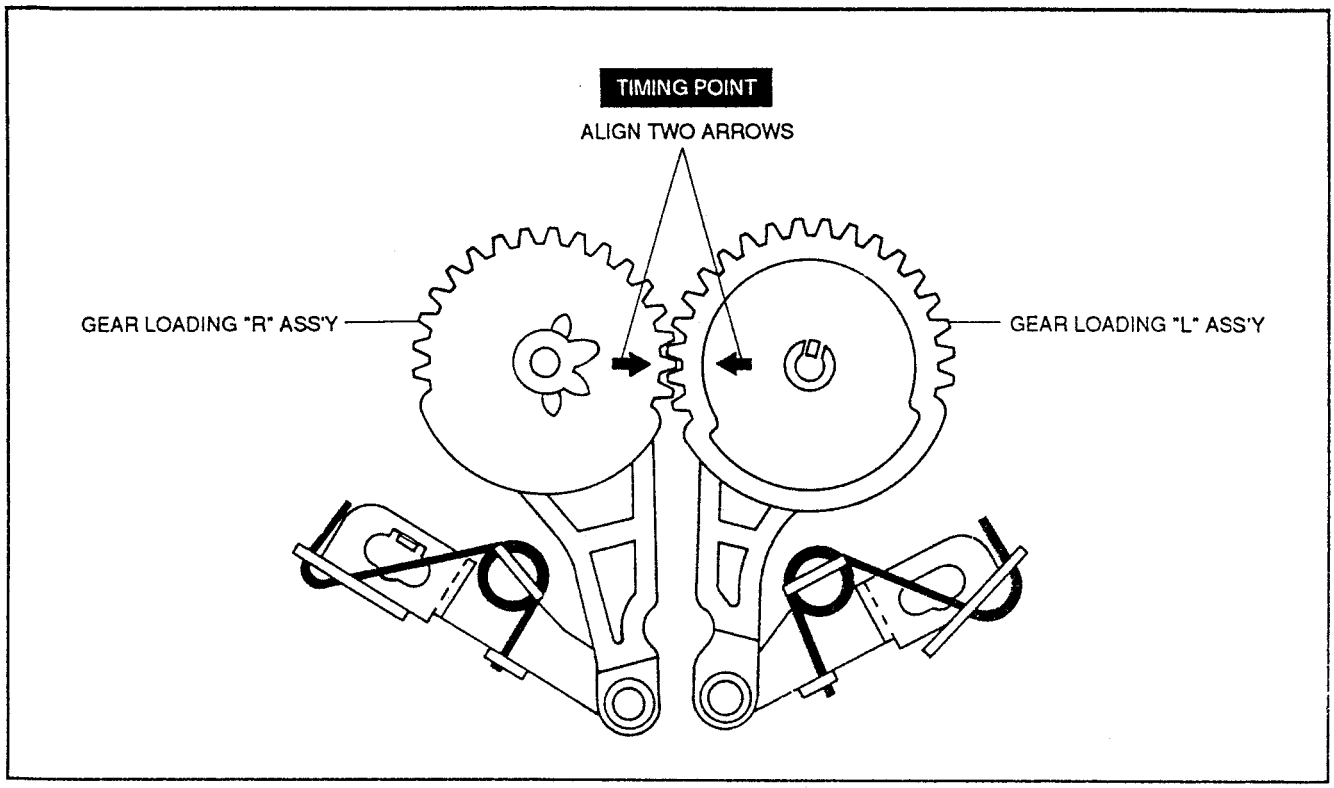


Fig. 51 Assembly of Gear Loading "L", "R" Ass'y

4-33. Slide Pinch Removal

1) Push the tab ① in the direction of arrow "A". (Refer to detail drawing)
2) Lift the slide pinch ② in the direction of arrow "B".

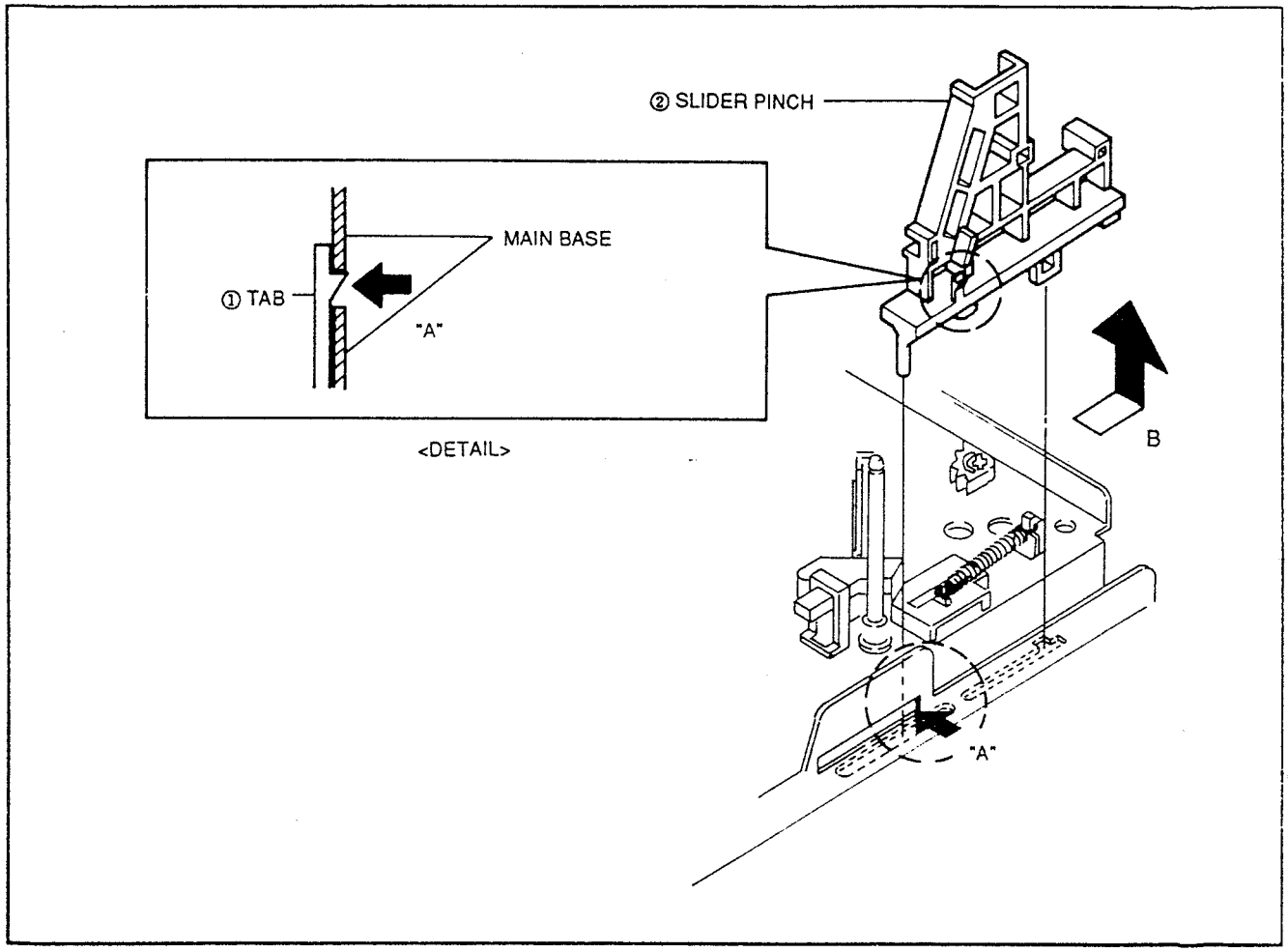


Fig. 52 Slide Pinch Removal

4-34. Slide Push Removal

1) Remove the spring slide push ①.
2) Push the slide push ② in the direction of arrow "A".
3) Lift the slide push ② by pushing the tab ③ in the direction of arrow "B". (Refer to detail drawing)

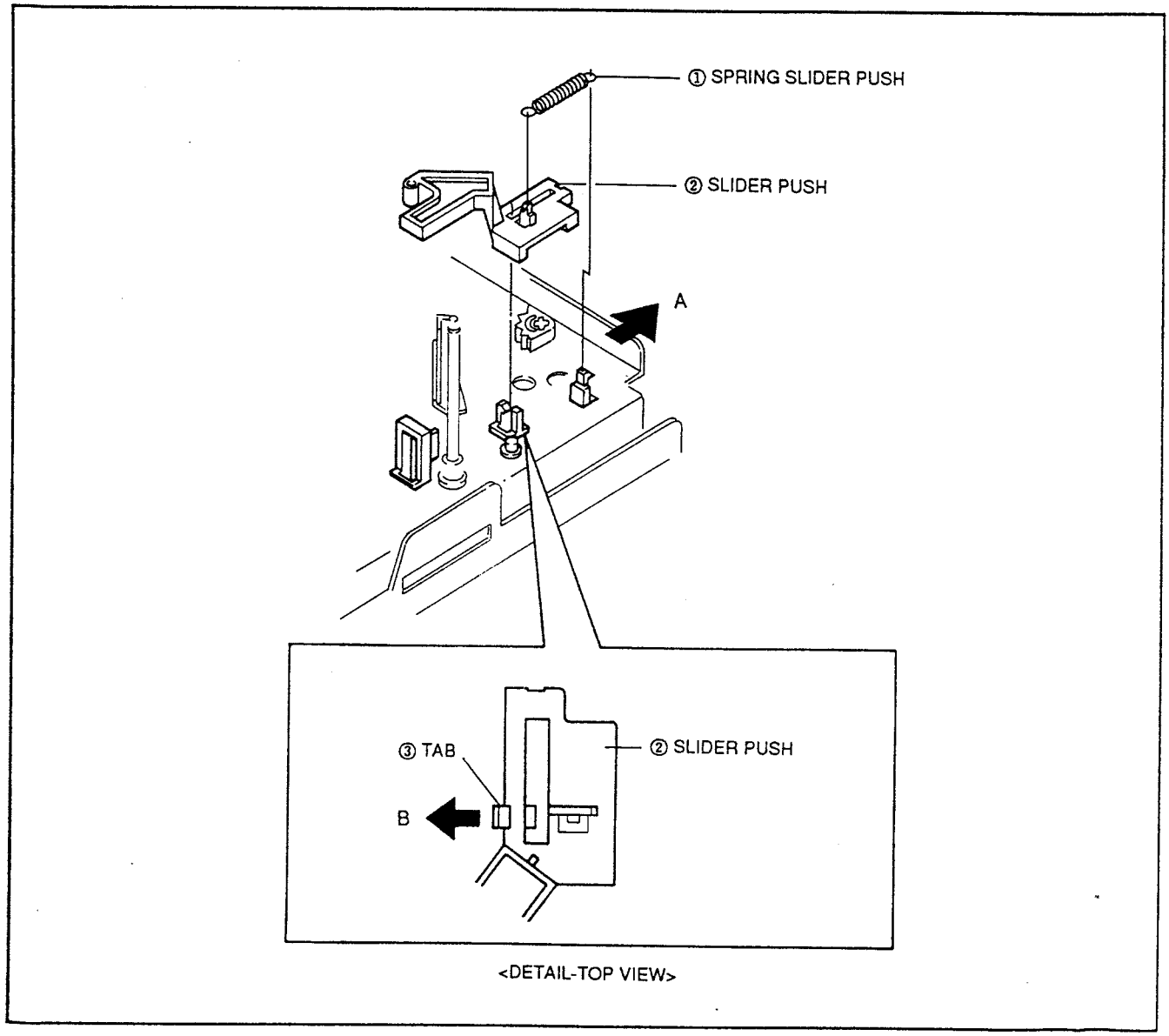


Fig. 53 Slide Push Removal

4-35. Prism LED Removal

1) Release the tab ① in the direction of arrow. (Refer to detail drawing)
2) Lift the prism LED ②.

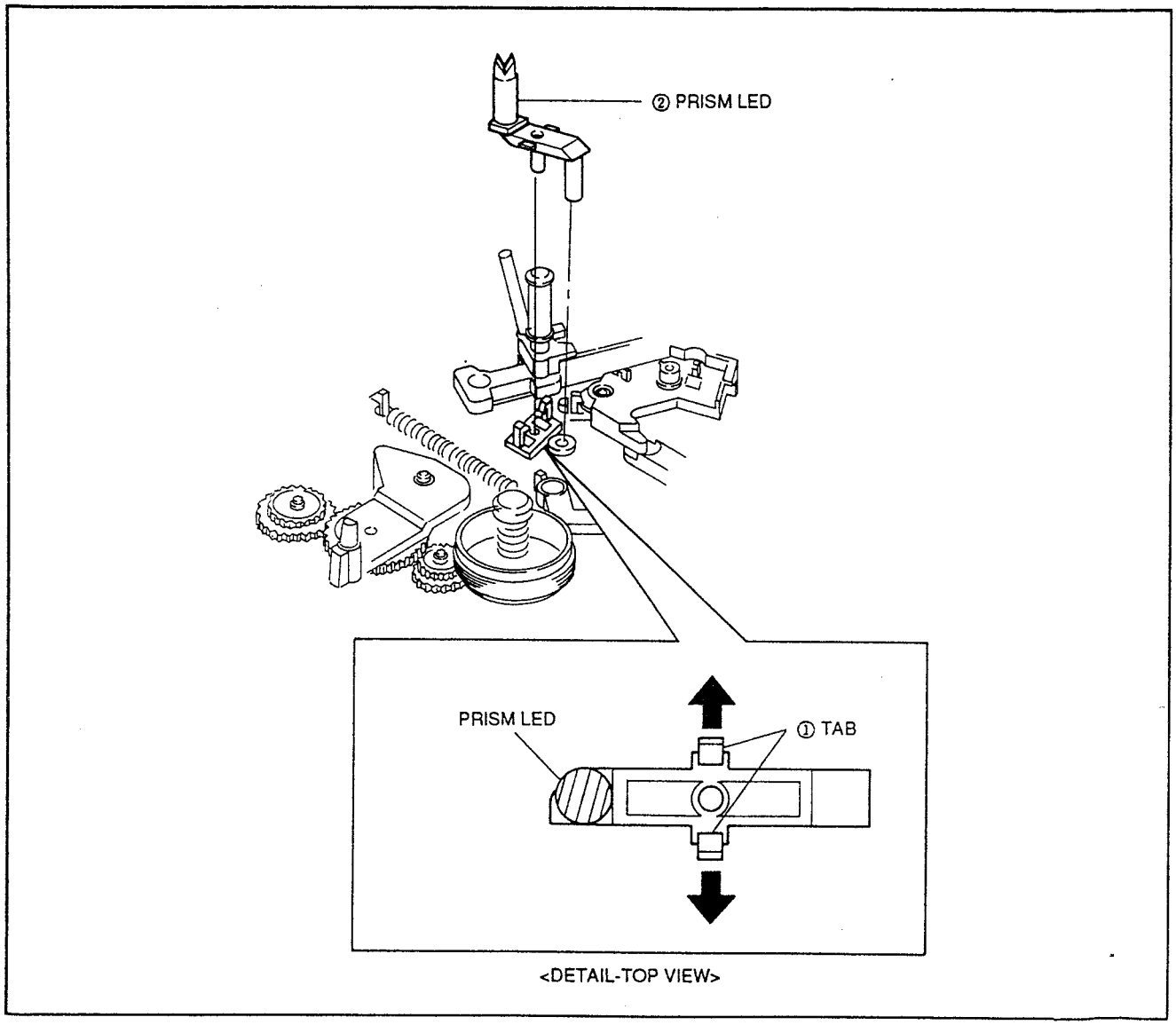


Fig. 54 Prism LED Removal

4-36. Lever Record Switch Removal

1) Remove the spring record switch ①.
2) Release the tab ② in the direction of arrow. (Refer to detail drawing)
3) Lift the lever record switch ③.

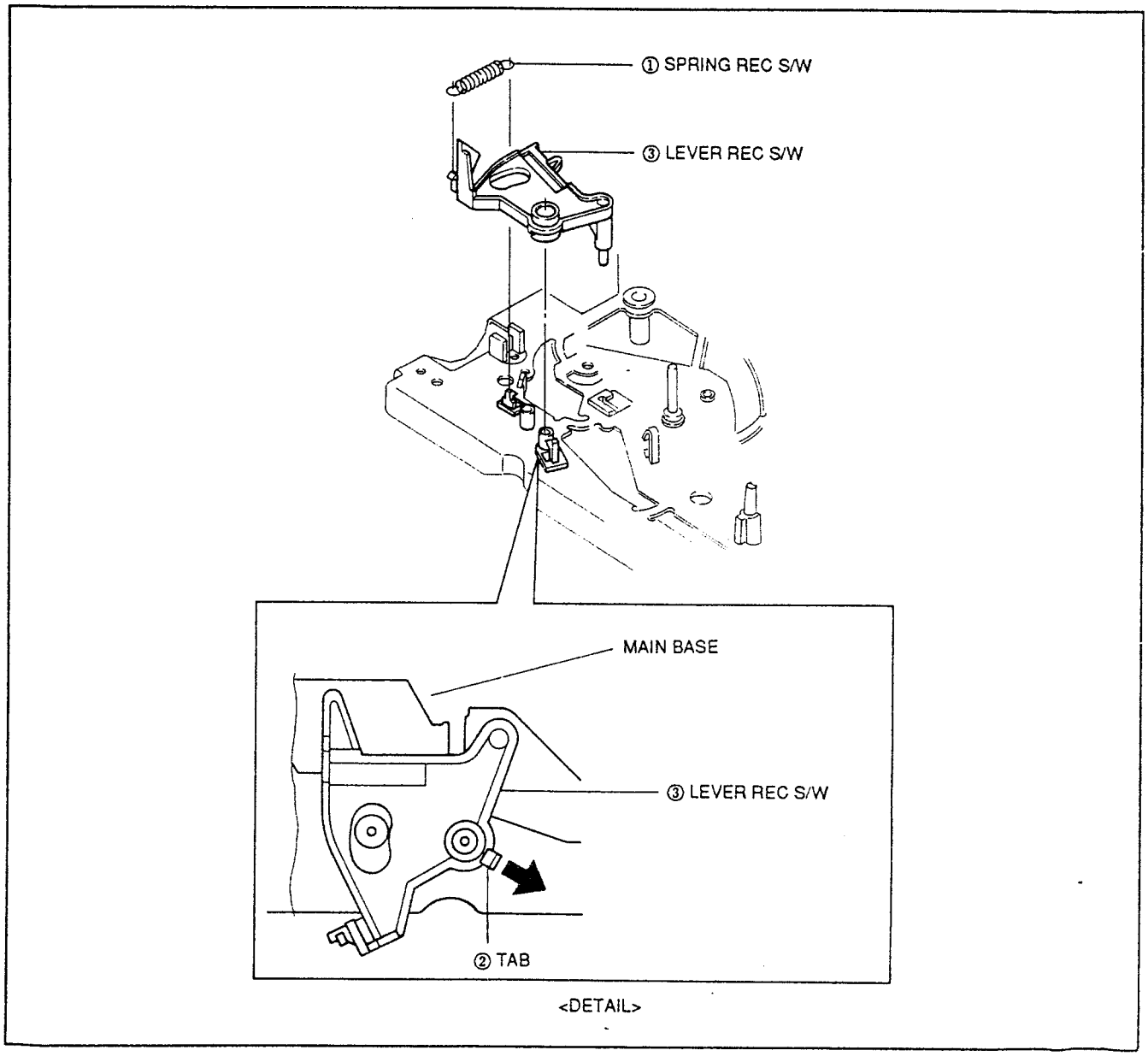


Fig. 55 Lever Record Switch Removal

4-37. Full Erase Head Removal

1) Remove one(1) screw ①.
2) Lift the magnet F/E head ②.

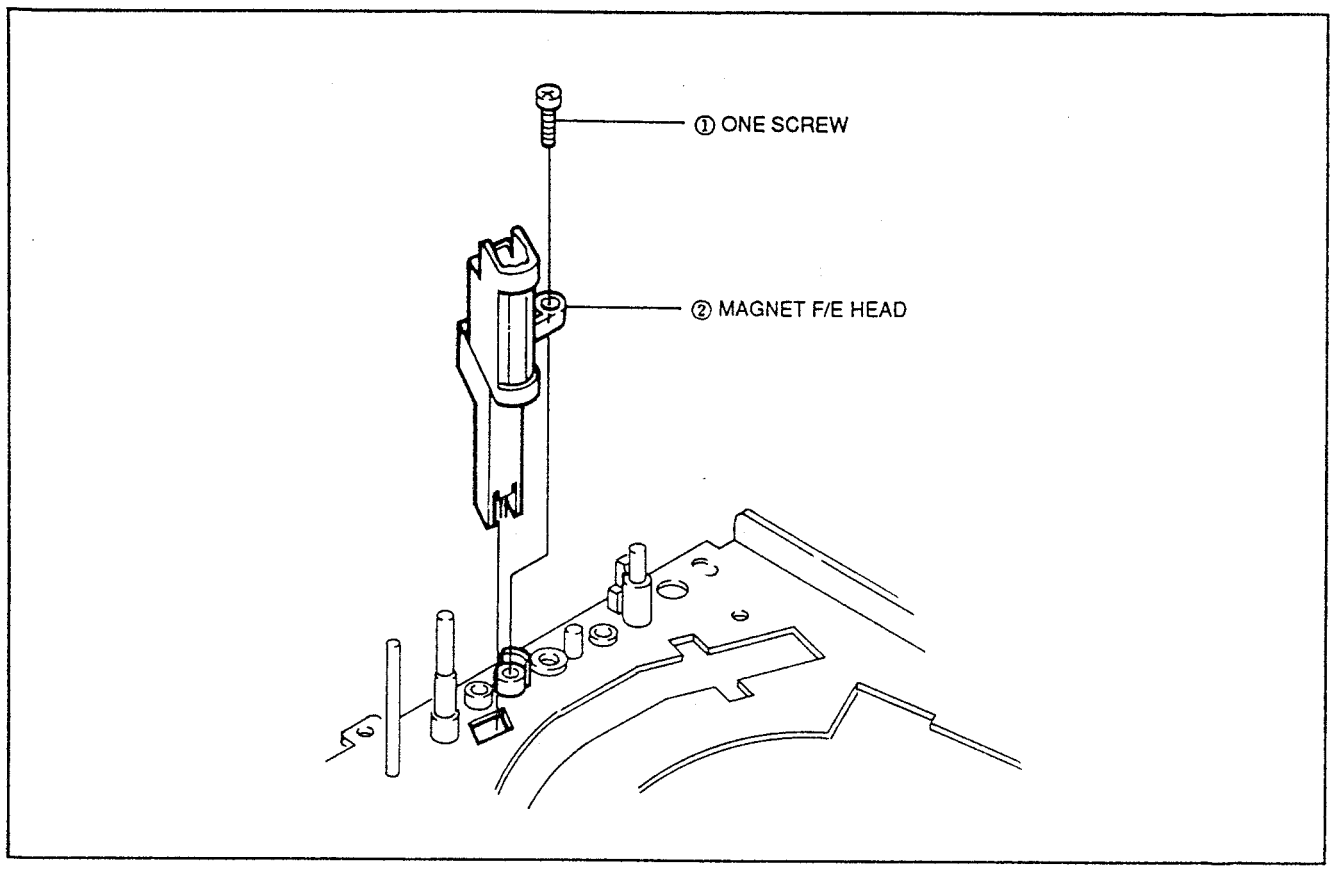


Fig. 56 Full Erase Head Removal

4-38. ACE Head Removal & Reassembly

1) Release the tab ① holding holder ACE toward arrows. (Refer to detail drawing "A")
2) Remove one(1) screw ②.
3) Lift the magnet ACE head ass'y ③.

Assembly : When reinstalling, be sure to align the three teeth of X-Position adjustment gear with the two slot of ACE head base.

NOTE : When adjusting the X-position adjustment gear using (+) driver, do not adjust by force.

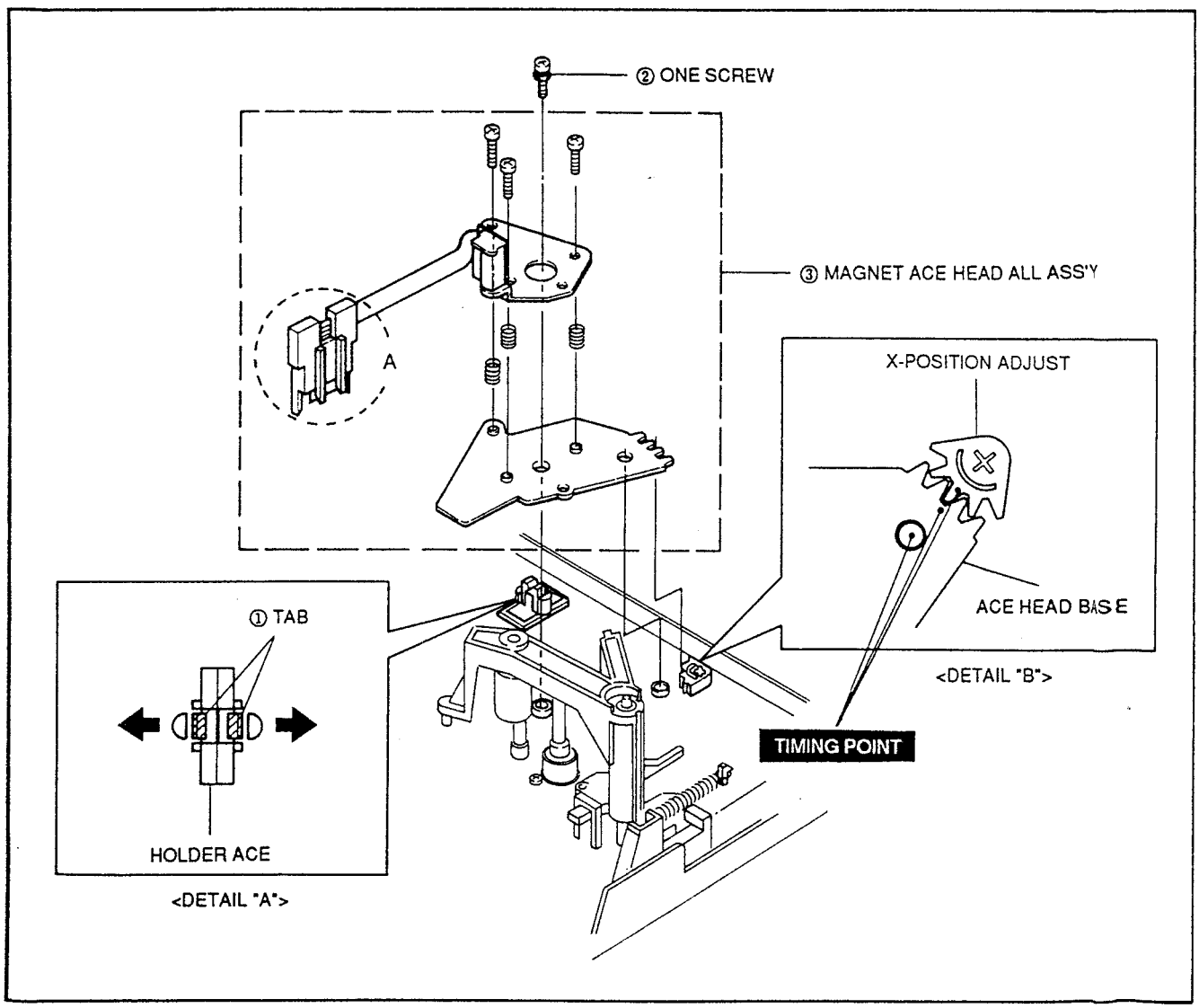


Fig. 57 ACE Head Ass'y Removal & Reassembly

4-39. Slide Guide Roller "S", "T" Ass'y Removal

1) Remove the cylinder ass'y from the main base. (Refer to Fig. 12, 13)
2) Remove the slide "S", "T" from the gear loading "L", "R" ass'y. (Refer to Fig. 50)
3) Move the guide roller "S", "T" ass'y to slot and then lift it to remove. (Refer to arrow)

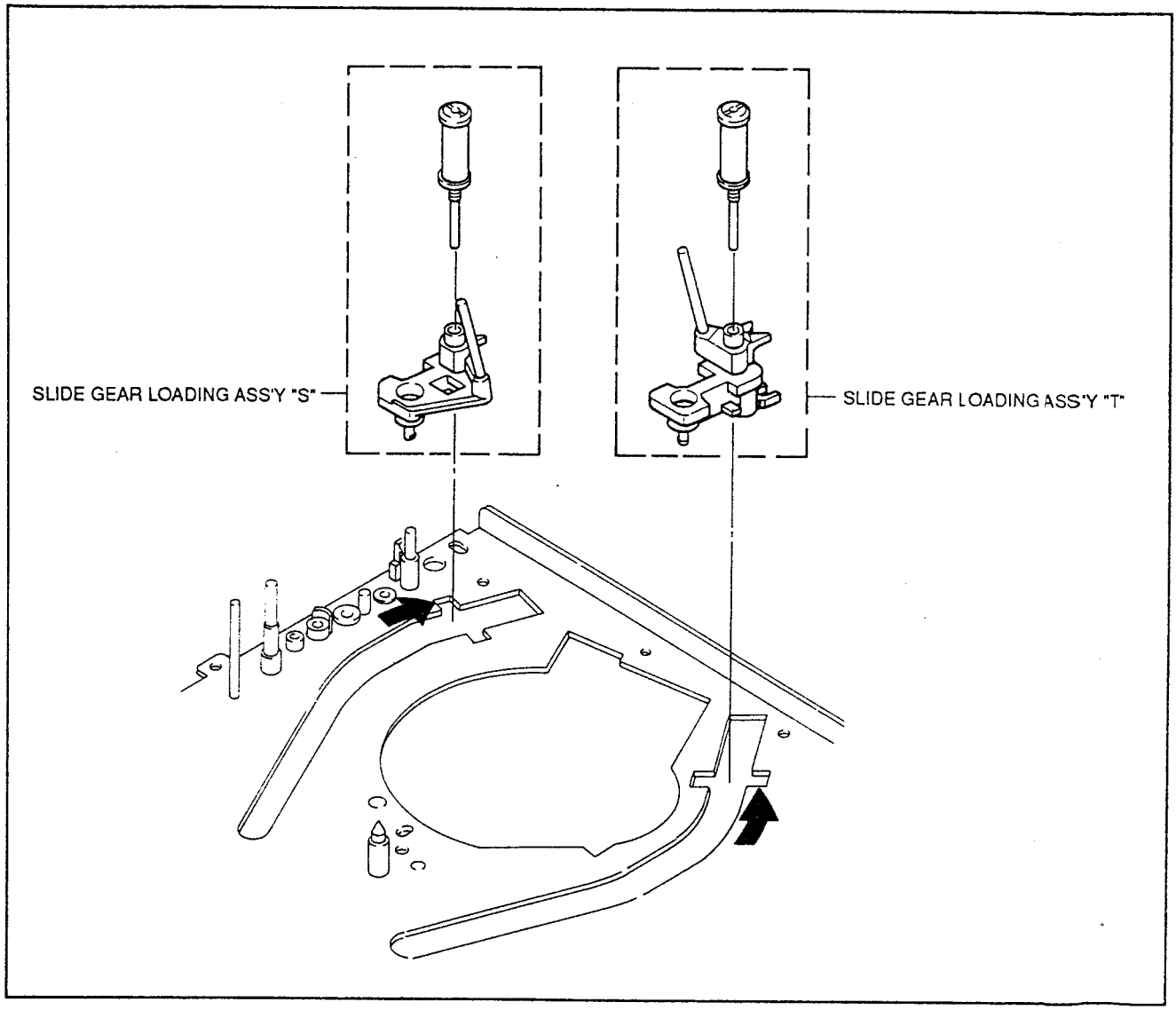


Fig. 58 Slide Guide Roller "S", "T" Ass'y Removal

4-40. Slide Guide Roller "S", "T" Ass'y
(When all parts except the cylinder assembly are removed.)

1) Push four(4) Lever Locks ① of the housing ass'y Simultaneously. (Refer to Fig. 59)
2) Push the holder cassette ass'y ③ toward arrow "B" while turning the gear master ② toward arrow "A". (Refer to Fig. 59)
3) Load the gear loading L, R ass'y ④, ⑤ to the middle position of guide rail by turning the gear master ② toward arrow "A". (Refer to Fig. 59, 60)
4) Install the slide guide roller S, T ⑥, ⑦ into rail slot and then move it to the position of gear loading L, R ass'y ④, ⑤. (Refer to Fig. 60)
5) Turn the gear master ② toward arrow "A". (Eject mode)

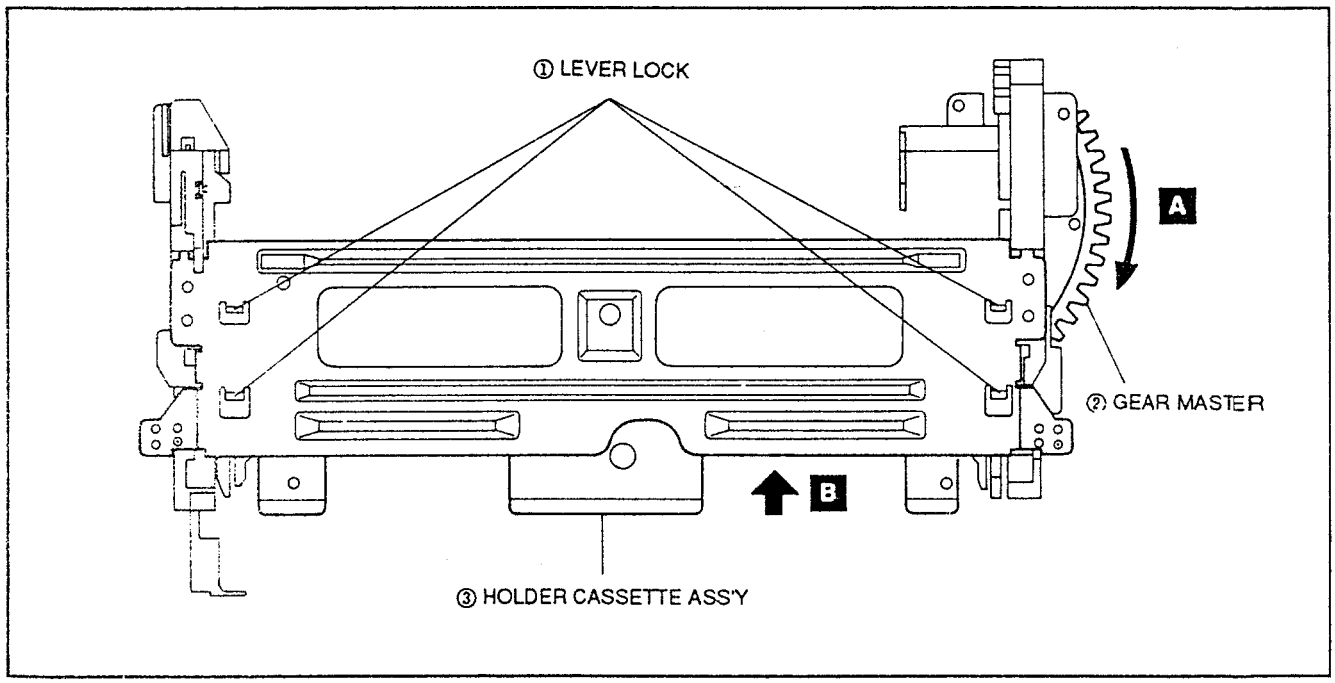


Fig. 59 How to operate the Housing Ass'y

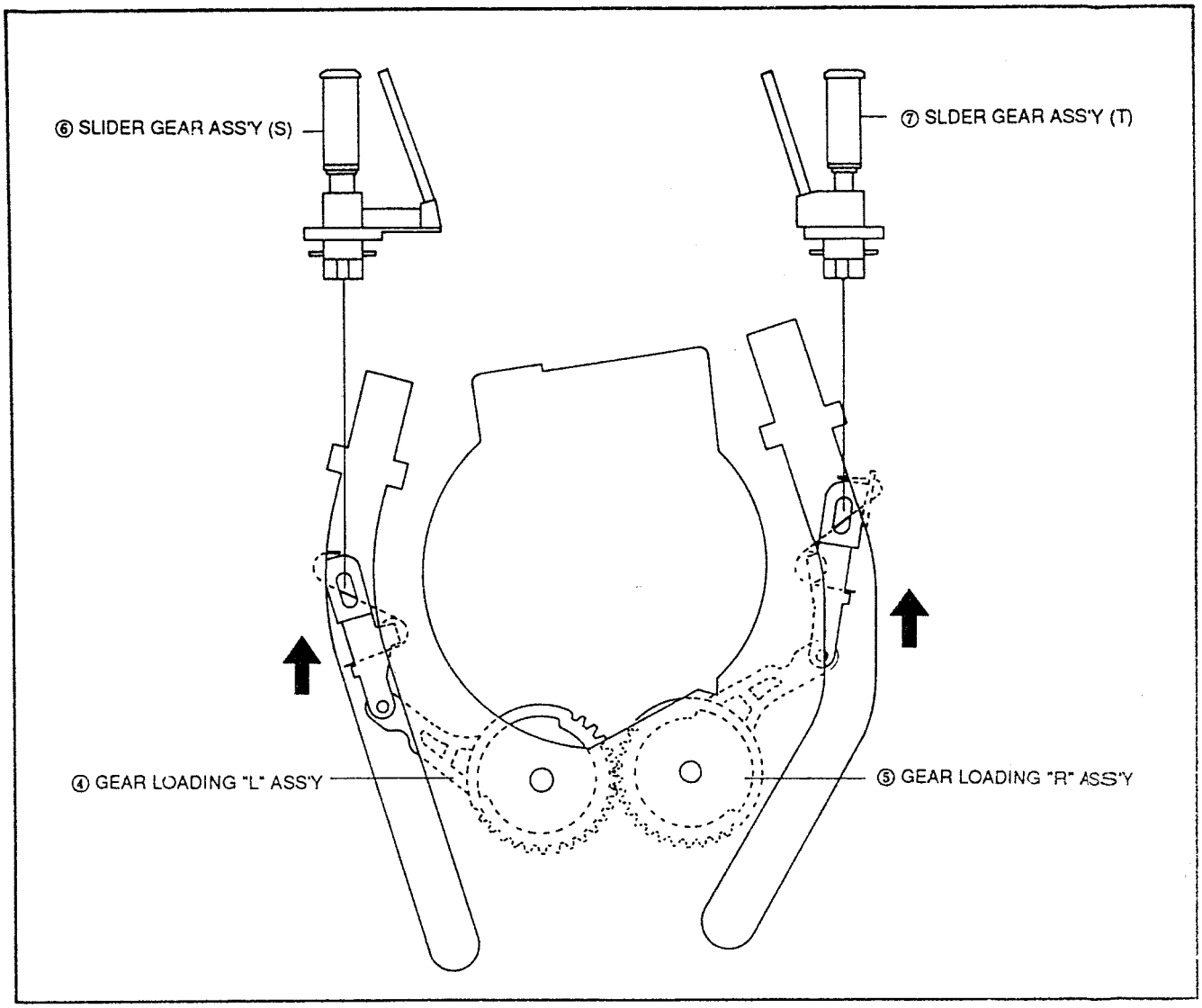


Fig. 60 Assembly of Slide Guide Roller "S", "T" Ass'y

5. CLEANING AND LUBRICATION

5-1. CLEANING TAPE MECHANISM

Periodic cleaning is necessary to insure continued excellent performance of the tape mechanism. To clean the following parts, patch and solvent are available.

1. Capstan shaft.
2. All tape guide posts.
3. Clutch pulley.
4. Pinch roller.
5. Belt capstan.
6. Capstan motor pulley.

5-2. CLEANING OF ROTATING & STATIONARY HEADS

To clean video heads, full erase head, and the audio/control (A/C) head we recommend using a head cleaning kit and solvent.

NOTE : When cleaning video heads, move the cleaning stick in the direction of head rotation (wiping in a vertical direction may damage the heads.).

Press a chamois cloth which has been dipped in cleaning fluid lightly against the rotating cylinder assembly. Clean slowly by rotating the upper cylinder ass'y by hand.

NOTE : Never turn the motor on when cleaning.

5-3. LUBRICATION OF TAPE MECHANISM

The tape transport mechanism is properly lubricated at the factory.
In normal use cycles, and with average environmental conditions, additional lubrication should not be required during the first year of operation.

Depending on the frequency of use and environmental conditions, periodic lubrication may be required.
When lubricating, remove the old lubricant first, then sparingly apply new lubricant. (Excessive lubricant may be transferred to other assemblies causing malfunction).

Use grease on the following parts every 1,000 hours of operation. (See exploded view for location);

1. Between base pole assembly (L, R) and main base.
2. Gear loading L, R.
3. Slide main.
4. Lever shift.
5. Gear master.
6. Lever slider pinch.
7. Pinch roller.
8. Slide pinch.
9. Base cylinder.

Oil may be required for the following parts after 1,000 hours of operation. (See exploded view for location);

Main base
1. Arm tension molding.
2. Shaft reel disk L, R.
3. Shaft gear relay S, T.
4. Shaft idler
5. Shaft clutch

Other parts which are not listed above do not require lubrication, except when parts are replaced.
Use appropriate oil or grease as indicated on the exploded view.

THE ASSEMBLY PROCEDURES OF DECK PARTS

NO	DESCRIPTION	SUB PARTS	LOCATE	REMARK
1	BASE MAIN ASS'Y	GREASE	TOP VIEW	
2	MOTOR D.D CAPSTAN	THREE SCREWS	TOP VIEW	
3	LEVER JOG ASS'Y	ONE SCREW	TOP VIEW	DX6-R/DX6-RC
4	GEAR RELAY "S" ASS'Y	ONE WASHER SLIT	TOP VIEW	
5	GEAR RELAY "T" ASS'Y	ONE WASHER SLIT	TOP VIEW	
6	IDLER ASS'Y	ONE WASHER SLIT	TOP VIEW	
7	REEL DISK "L" ASS'Y	ONE WASHER PLAIN	TOP VIEW	
8	REEL DISK "R" ASS'Y	ONE WASHER PLAIN	TOP VIEW	
9	ARM TENSION FULL ASS'Y		TOP VIEW	
10	SLIDER G/R ASS'Y (S)		TOP VIEW	
11	SLIDER G/R ASS'Y (T)		TOP VIEW	
12	SLIDE PUSH		TOP VIEW	
13	SLIDER PINCH	GREASE	TOP VIEW	
14	GEAR LOADING "L" ASS'Y		BOTTOM VIEW	
15	GEAR LOADING "R" ASS'Y		BOTTOM VIEW	
16	LEVER IDLER CHANGE		BOTTOM VIEW	
17	LEVER SHIFT ASS'Y	SPRING GUIDE	BOTTOM VIEW	
18	SLIDER MAIN	ONE WASHER SLIT	BOTTOM VIEW	
19	LEVER SLIDER PINCH	ONE WASHER SLIT	BOTTOM VIEW	
20	CLUTCH ASS'Y	ONE WASHER SLIT, PLAIN	BOTTOM VIEW	
21	BRAKE CAPSTAN ASS'Y		BOTTOM VIEW	
22	SPRING BRAKE CAPSTAN		BOTTOM VIEW	
23	UNIT LOADING	TWO SCREWS	BOTTOM VIEW	
24	GEAR MASTER	ONE WASHER SLIT	BOTTOM VIEW	
25	BELT CAPSTAN		BOTTOM VIEW	
26	LEVER REVIEW		TOP VIEW	
27	ARM REVIEW ASS'Y		TOP VIEW	
28	LEVER PINCH CAM		TOP VIEW	
29	LEVER PINCH COMP ASS'Y		TOP VIEW	
30	SPRING ARM PINCH		TOP VIEW	
31	UNIT PINCH ROLLER	ONE WASHER SLIT	TOP VIEW	
32	BRAKE MAIN "L" ASS'Y		TOP VIEW	
33	BRAKE MAIN "R" ASS'Y		TOP VIEW	
34	SPRING BRAKE MAIN		TOP VIEW	
35	BRAKE SUB "L" ASS'Y		TOP VIEW	
36	BRAKE SUB "R" ASS'Y		TOP VIEW	
37	SPRING BRAKE SUB "L"		TOP VIEW	
38	SPRING BRAKE SUB "R"		TOP VIEW	
39	PRISM LED		TOP VIEW	
40	SLIDER RACK HOUSING		TOP VIEW	
41	LEVER REC S/W		TOP VIEW	
42	SPRING REC S/W		TOP VIEW	
43	SPRING TENSION		TOP VIEW	
44	SPRING SLIDE PUSH		TOP VIEW	
45	MAGNET ACE HEAD ASS'Y	ONE SCREW	TOP VIEW	
46	HOUSING ASS'Y	THREE SCREWS	TOP VIEW	
47	DRUM ASS'Y	THREE SCREWS	TOP VIEW	
48	HEAD BRUSH ASS'Y	ONE SCREW	TOP VIEW	
49	MEGNET F/E HEAD	ONE SCREW	TOP VIEW	
50	STOPPER TAPE (HEAD CLEANER ASS'Y)		TOP VIEW	DX5-R/DX6-R DX5-RC/DX6-RC

6. ADJUSTMENT

6-1. TAPE TRANSPORT SYSTEM

Note : The tape transport system has been adjusted precisely in the factory. Alignment is not necessary except for the following :
* Noise observed on the screen.
* Tape damage. * Parts replacement in the tape transport system.

6-1-1. Location of Tape Transport Adjustment (Adjustment Reference)

Lower flange height of tape guide is used as the basic reference for the transport adjustment.
To maintain the height of the tape guide are prevent damage, do not apply excessive force onto the main base.

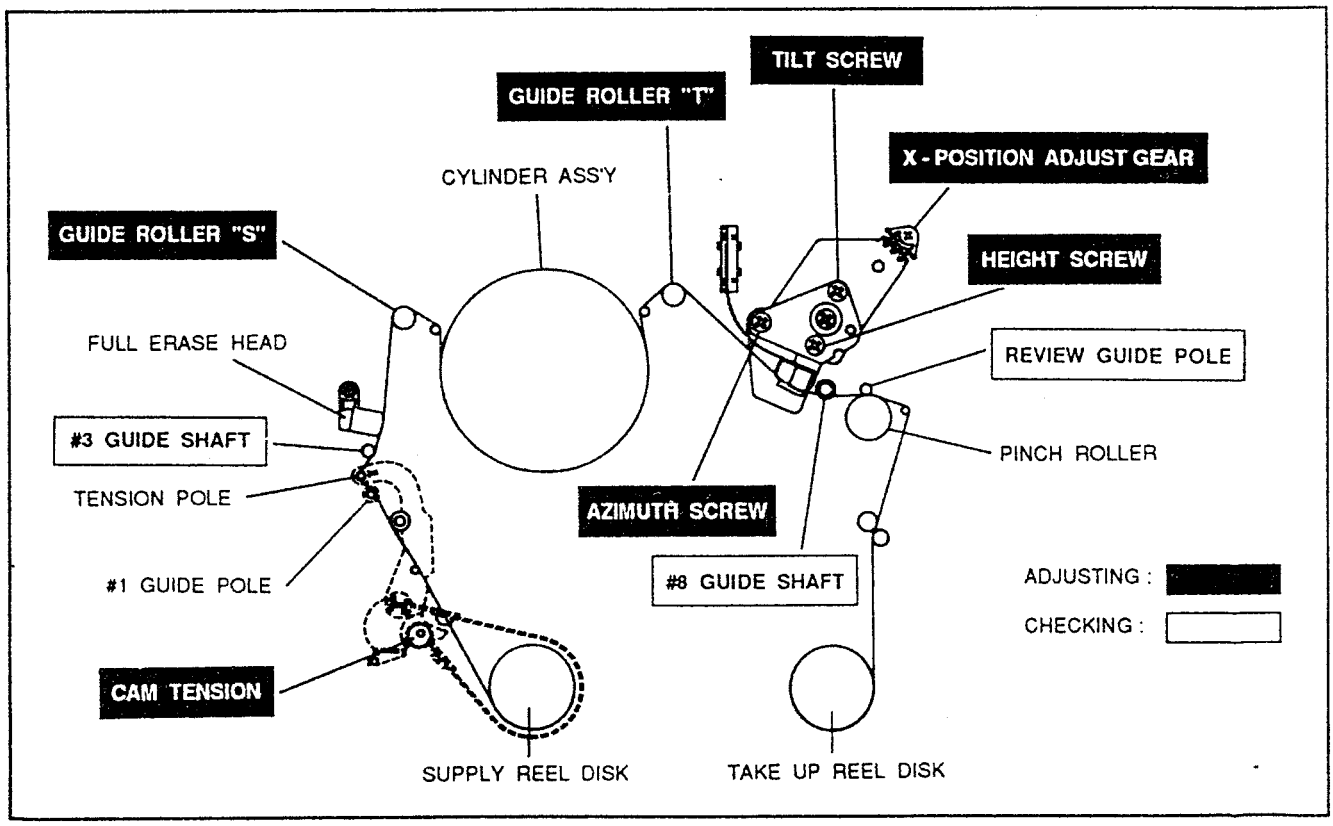


Fig. 1 Location of Tape Transport Adjustment

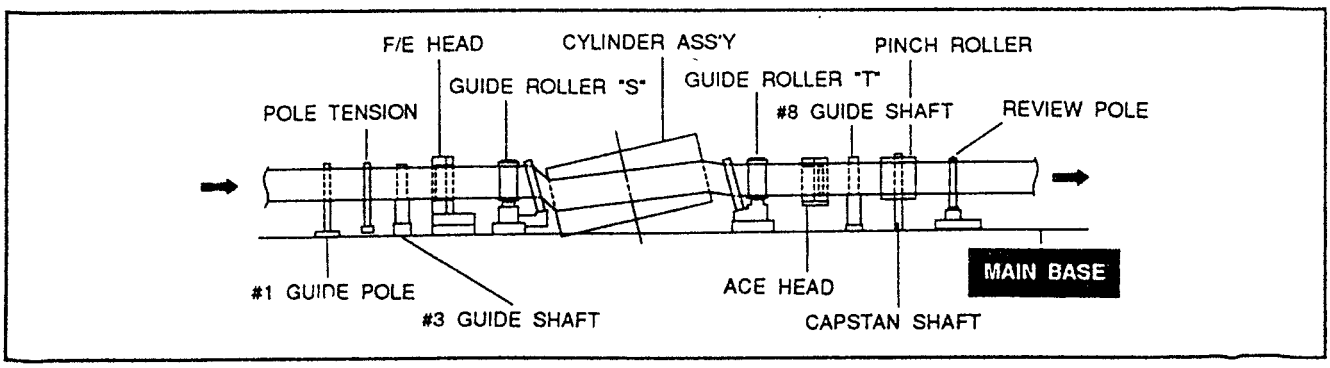


Fig. 2 Tape Travel Diagram

6-1-2. Tape Transport System Adjustment

1) Pre-adjustment

When the part(s) are replaced, perform the required adjustments by referring to procedures for the tape transport system. When the part (s) are replaced, the tape path may be changed. First run a T-120 (E-180) tape and make sure excessive tape wrinkle does not occur at each tape guide.

1. If tape wrinkle is observed at the S, T-guide rollers, turn the S, T-guide rollers until wrinkle disappears.
2. If the tape wrinkle is still observed at the tape guide, perform the tilt adjustment of the A/C head.

2) Adjustment Procedure

[1] A/C Head Assembly Adjustment

a. A/C Head Height Adjustment

1. Run the alignment tape (Color Bar) in the playback mode.
2. Observe surface of the audio head using a dental mirror.
3. Turn screw (A), (B), (C) clockwise or counterclockwise until the gap of lower tape edge and the lower edge of the control head is about 0.25 mm. (Refer to Fig. 3 and 4)

Test Point : Envelope
H'D SW - Trigger (*See page 72 for Location-No.)
Control Pulse
Audio Out

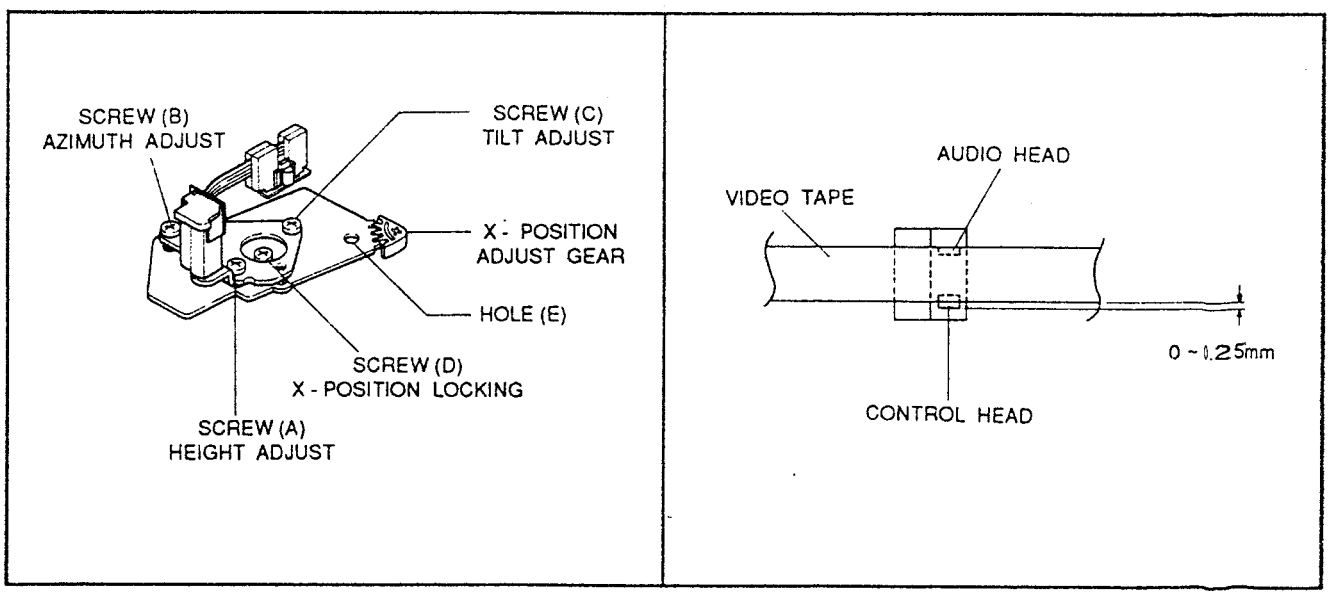


Fig. 3 Location of A/C Head Adjustment Screw

Fig. 4 A/C Head Height Adjustment

b. A/C Head Tilt Adjustment

1. Playback an T-160 (E-240) tape and observe the position of the tape at the lower flange of tape guide.
2. Confirm that there is no curl or wrinkle at the lower flange of tape guide as shown in Fig. 5 (B).
3. If a curl or wrinkle of the tape has occurred, slightly turn the screw (C) tilt adjust on the A/C H'd ass'y clockwise until it disappears as shown in Fig. 5 (B).
4. Reconfirm the A/C head height.

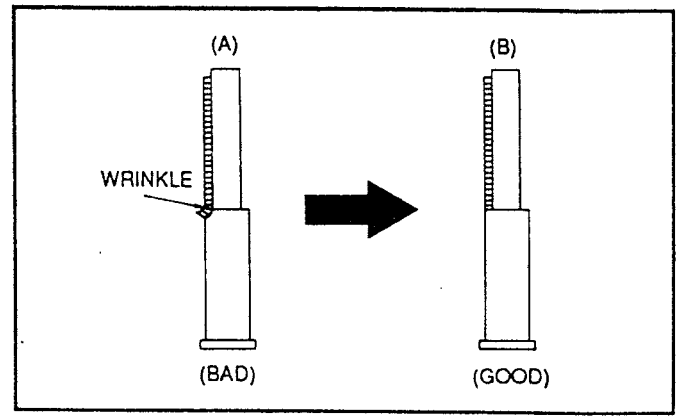


Fig. 5 Tape Guide Check

c. Audio Azimuth Adjustment

1. Load alignment tape (Mono Scope) and playback the NTSC : 7KHz (PAL : 6KHz) signal.
2. Connect channel-1 scope probe to Audio Out on the Main PCB.
3. Adjust screw (B) to achieve maximum audio level. (See Fig. 3)

d. A/C Head Position (X-Point) Adjustment

PAL SYSTEM ONLY

(If the remote control is available)

- Press the **"1"** button and **"INPUT"** button simultaneously. This will adjust the tracking center automatically.

(If the remote control is not abailable)

1. Playback the Mono Scope alignment tape.
2. Connect CH-1 scope probe to "CTL" and CH-2 scope probe to "H'D SW". And then, trigger head switching pulse.
3. Set tracking preset to 14.5msec (2H'd : 0.5msec) using the **"FINE"(TRACKING)** button ▲/▼ of remote control. (Refer to Fig. 6 and 7)
4. Connect CH-1 scope probe to "ENV" and the CH-2 to "H'D SW" trigger on CH-1.
5. Insert the adjusting driver (+) into X-position adjusting gear. Adjust the driver in either direction for maximum envelope waveform.

Note : Since the adjusting gear unit may be damaged, do not adjust by force when adjusting the X-point using the adjusting driver(+). After turn the X-point adjusting screw (D) counterclockwise a little, perform the adjustment. After adjustment is completed, tighten the screw.

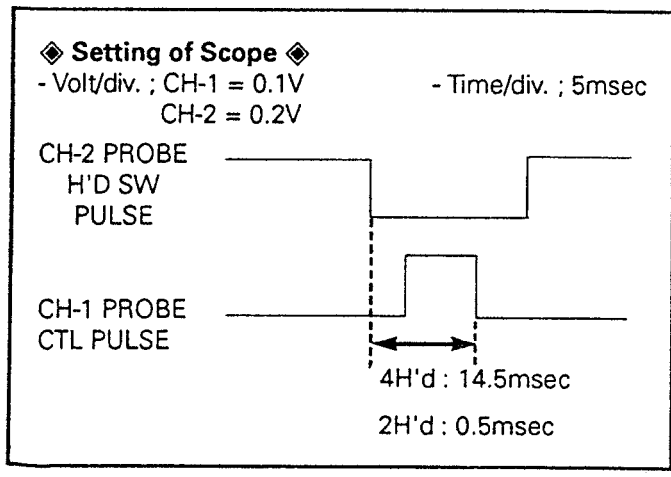


Fig. 6 Tracking Preset Adjustment

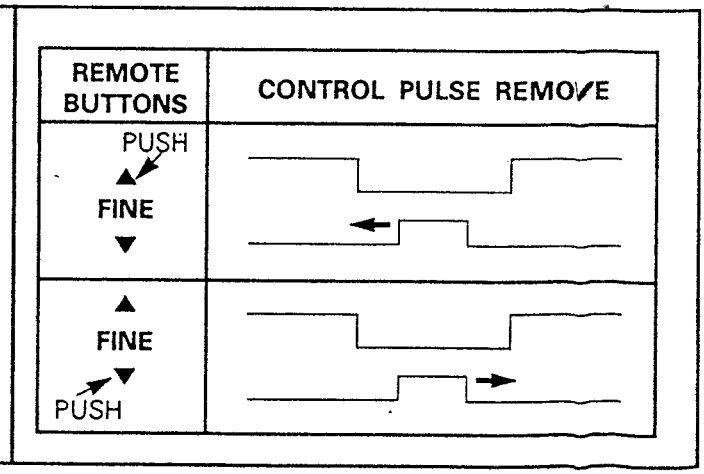


Fig. 7 Control Pulse Adjustment

NTSC SYSTEM ONLY

1. Playback the Mono Scope alignment tape.
2. Connect CH-1 scope probe to "CTL" and CH-2 scope probe to "H'D SW". And then, trigger head switching pulse.
3. Set tracking preset to 7msec using the **"TRACKING"** button ▲/▼ of remote control.
   (Refer to Fig. 8 and 9)
4. Connect CH-1 scope probe to "ENV" and the CH-2 scope probe to "H'D SW" trigger on CH-1.
5. Insert the adjusting driver (+) into X-position adjusting gear. Adjust the driver in either direction for maximum envelope waveform.

Note : Since the adjusting gear unit may be damaged, do not adjust by force when adjusting the X-point using the adjusting driver(+). After turn the X-point adjusting screw (D) counterclockwise a little, perform the adjustment. After adjustment is completed, tighten the screw.

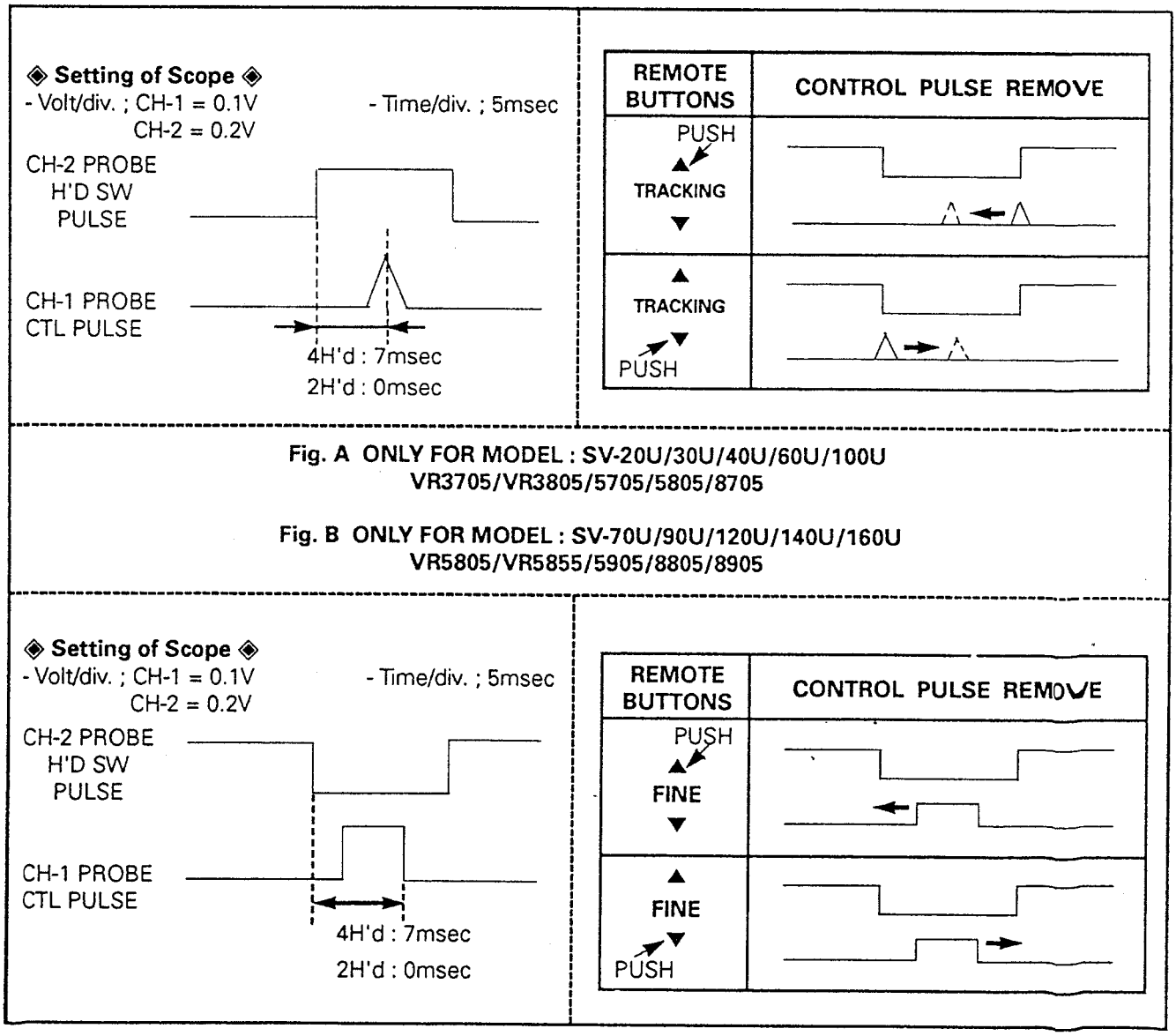


Fig. A ONLY FOR MODEL : SV-20U/30U/40U/60U/100U
VR3705/VR3805/5705/5805/8705

Fig. B ONLY FOR MODEL : SV-70U/90U/120U/140U/160U
VR5805/VR5855/5905/8805/8905

Fig. 8 Tracking Preset Adjustment

Fig. 9 Control Pulse Adjustment

M-PAL / N-PAL SYSTEM ONLY

1. Playback the Mono Scope alignment tape.
2. Connect CH-1 scope probe to "ENV" and CH-2 scope probe to "H'D SW".
   And then, trigger head switching pulse.
3. Short circuits the W711 & W748 on the F/Timer PCB. Press the "5" button of Remote control within 3 sec and then, tracking preset enters center. (See Fig. 10)
4. Insert the adjusting driver (+) into X-position adjusting gear. Adjust the driver in either direction for maximum envelope waveform.

Note : Since the adjusting gear unit may be damaged, do not adjust by force when adjusting the X-point using the adjusting driver(+). After turn the X-point adjusting screw (D) counterclockwise a little, perform the adjustment. After adjustment is completed, tighten the screw.

5. After adjustment is completed, press the "POWER" button to release.

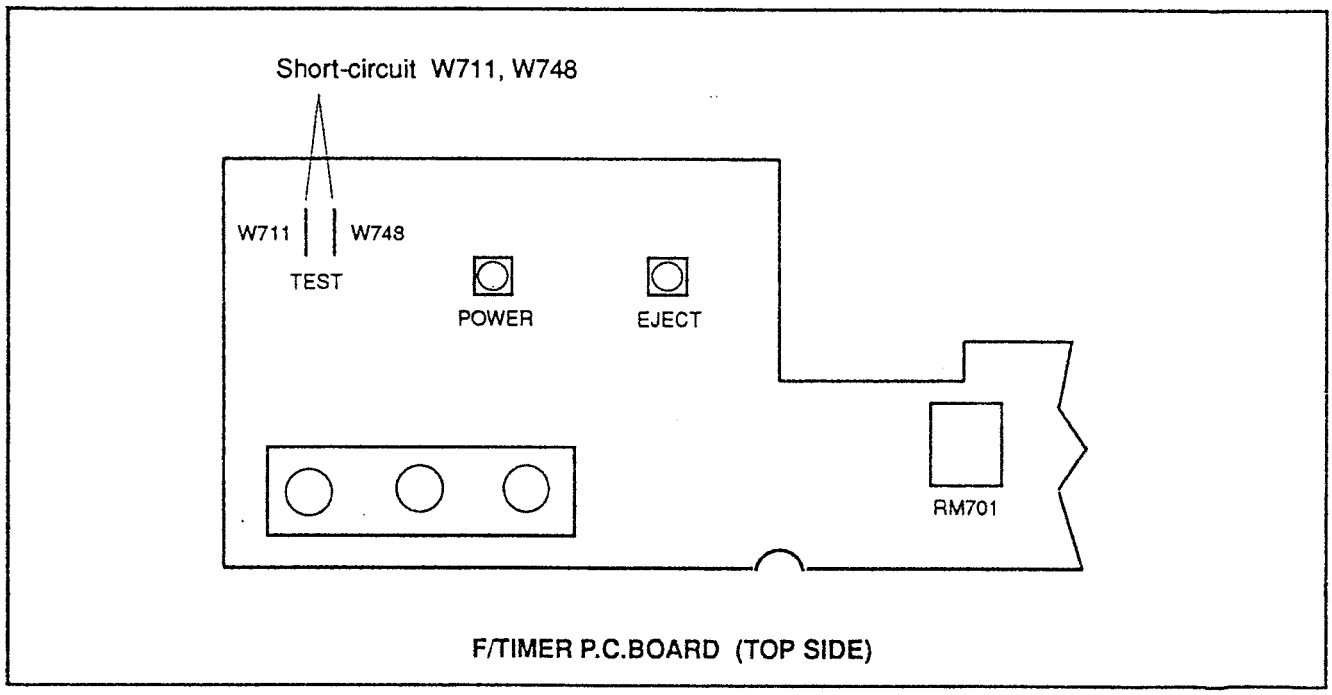


Fig. 10 The Location of W711 & W748 on the F/Timer PCB

[2] Linearity Adjustment (S, T-guide Rollers Adjustment)

Test Point : Envelope (*See page 72 for Location-No.)
H'D SW - Trigger

1. Playback the Mono Scope alignment tape (SP mode).
2. Observe the video envelope signal on an oscilloscope triggered by the video switching pulse.
3. Make sure the video envelope waveform (in its minimum output) meets the specification shown in Fig. 11. If it does not, adjust as follows ;

Note :
a=Maximum output of the video RF envelope.
b=Minimum output of the video RF envelope at the entrance side.
c=Minimum output of the video RF envelope at the center point.
d=Maximum output of the video RF envelope at the exit side.

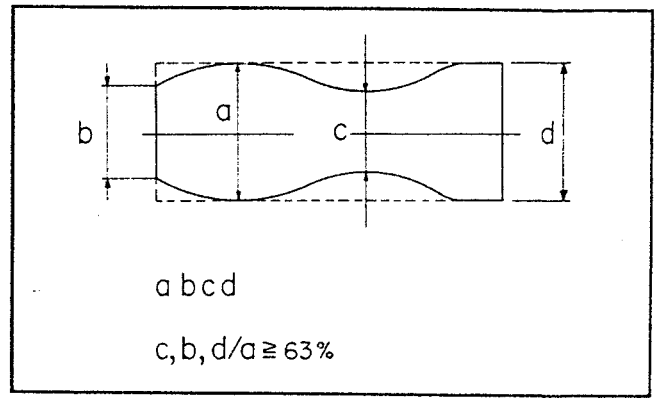


Fig. 11 Envelope Waveform Adjustment

4. If the section A in Fig. 12 does not meet the specification, adjust the S-guide roller up or down.
5. If the section B in Fig. 12 does not meet the specification, adjust T-guide roller up or down.
6. Slightly loosen the set screw at the lower part of the S, T-guide rollers with a Hex Wrench (0.9mm) so that the guide roller can be adjusted with reasonable tightness (Refer to Fig. 13).
7. Play back the Mono Scope alignment tape (SP mode).
8. Connect an oscilloscope CH-1 to the Envelope and CH-2 to the H'D SW PULSE on the same PCB for triggering.
9. Turn the guide roller heads with a flat head (▬) driver to obtain a flat video RF envelope as shown in Fig. 14.
10. After the adjustment is completed, tighten the set screws.

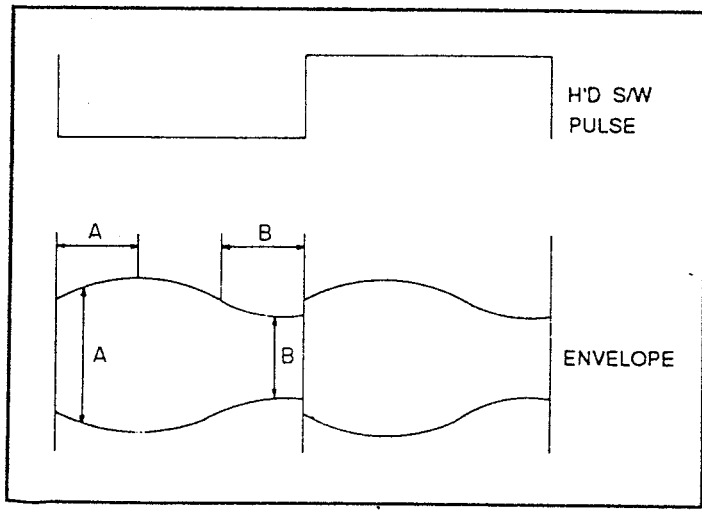


Fig. 12 Adjustment Points

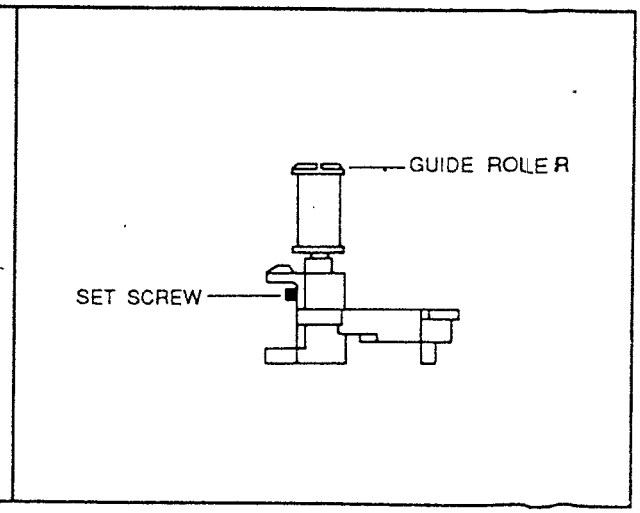


Fig. 13

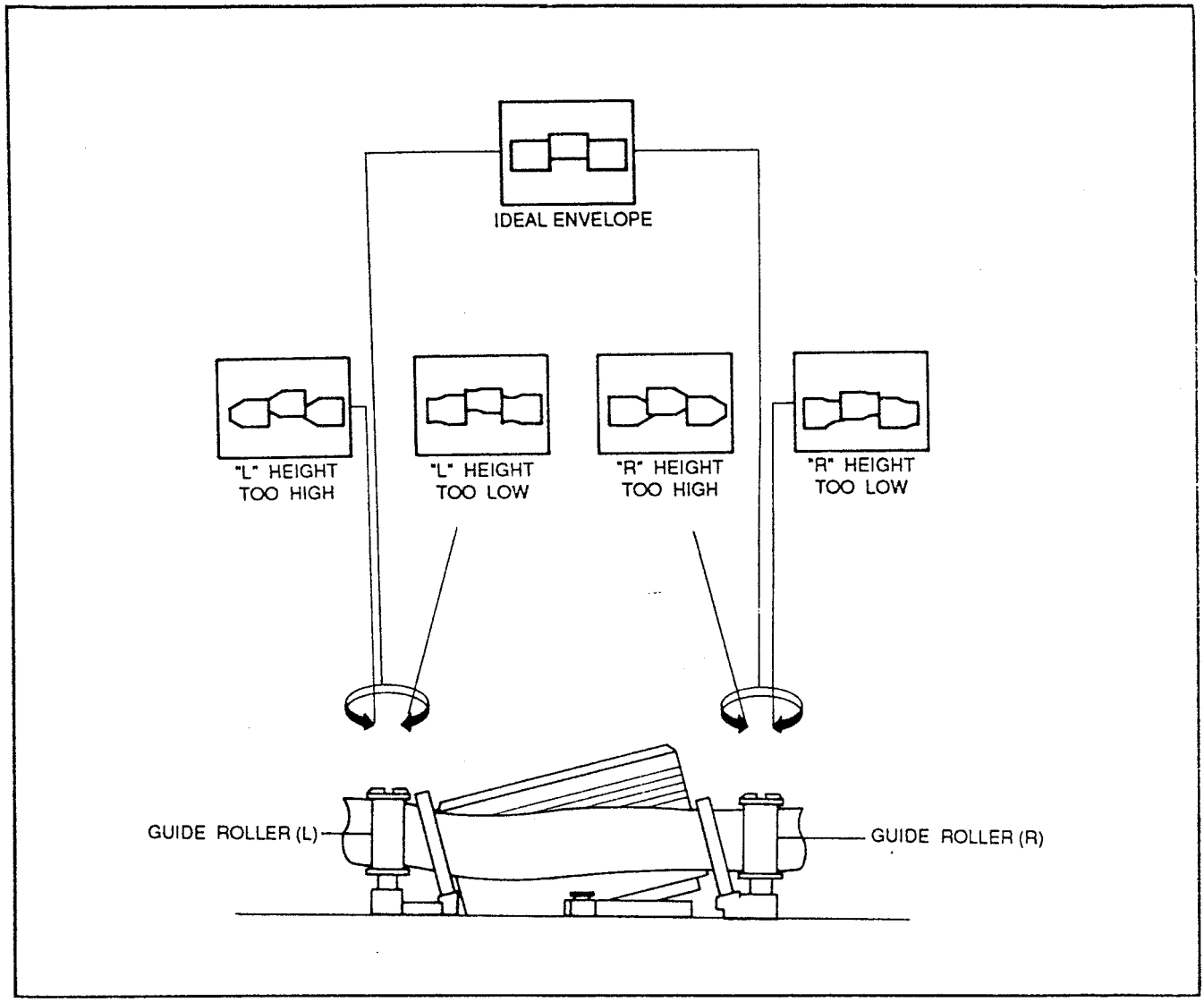


Fig. 14 S, T-Guide Roller Height Adjustments

[3] Check for transitional operation from RPS to play

Check transition from RPS mode to play mode, using a pre-recorded SP tape, make sure the entrance side of envelope comes to an appropriate steady state within 3 seconds (as shown in Fig. 15).

If the envelope waveform does not reach specified peak-to-peak amplitude within 3 seconds, adjust as follows :

1. Make sure there is no gap between the supply roller lower flange and the tape.
   If there is a gap, adjust the supply guide roller again.
2. Change operation mode from the RPS to the play mode again and make sure entrance side of envelope rises within 3 seconds.

[4] Envelope check

1. Make recordings on T-120 (E-120) and T-160 (E-180) tapes, and make sure the playback output envelope meets the specification as shown in Fig. 16.
2. Play back a self recorded tape (recording made on this unit), (with a T-120, E-120) the video envelope should meet the specification as shown in Fig. 14. In SP mode, (A) should be same as (B).
   If the head gap is wide, upper cylinder should be checked.

[5] Tape wrinkle check

1. Run the T-160 (E-240) tape in the playback, FPS, RPS and the pause mode and then observe tape wrinkle at each guide.
2. If excessive tape wrinkle is observed in the mode shown above, perform the following adjustments playback mode:

- Tape wrinkle at the S, T-guide roller section : Linearity adjustment.
- Tape wrinkle at tape guide flange : A/C head assembly coarse adjustment.

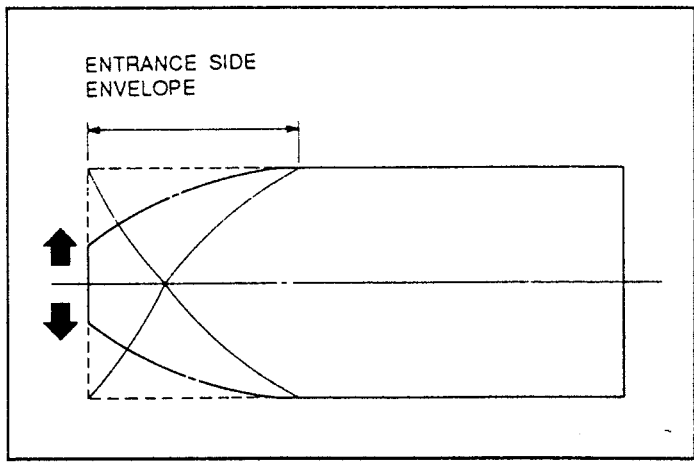


Fig. 15 Video Envelope Rising when Operation Mode Changes from RPS to Play Mode.

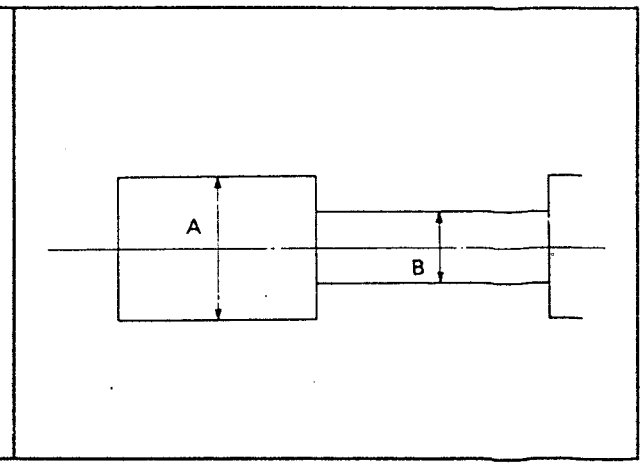


Fig. 16 Envelope Output and Output Level

6-2. REEL TORQUE

6-2-1. Reel Torque

1. The rotation of the capstan motor drives the clutch ass'y through the belt capstan motor.
2. Brake operation and shift operation in FF/REW are done by a slide lever.
3. Transportation of accurate driving force is done by gears (clutch ass'y).

Note : If the spec does not neet the specification in above chart, replace the clutch ass'y and then recheck.

MODE	TORQUE g/cm	GAUGE
PB/REC	100 ± 30	Cassette Torquemeter
RPS	170 ± 30	Cassette Torquemeter
FF/REW	Minimum 600	Torque Gauge

6-2-2. Location of Tension Pole and Back Tension Adjustment

1. Remove the housing ass'y and set the deck to "PLAY" mode.
2. Adjust the cam tension to 0 ~ −0.5mm from the center of supply roller.
3. The back tension meter should be used to check back tension. It should be 41 ~ 51g.cm. (PAL : 40 ~ 47g.cm).

Counterclockwise : Torque UP
Clockwise : Torque DOWN

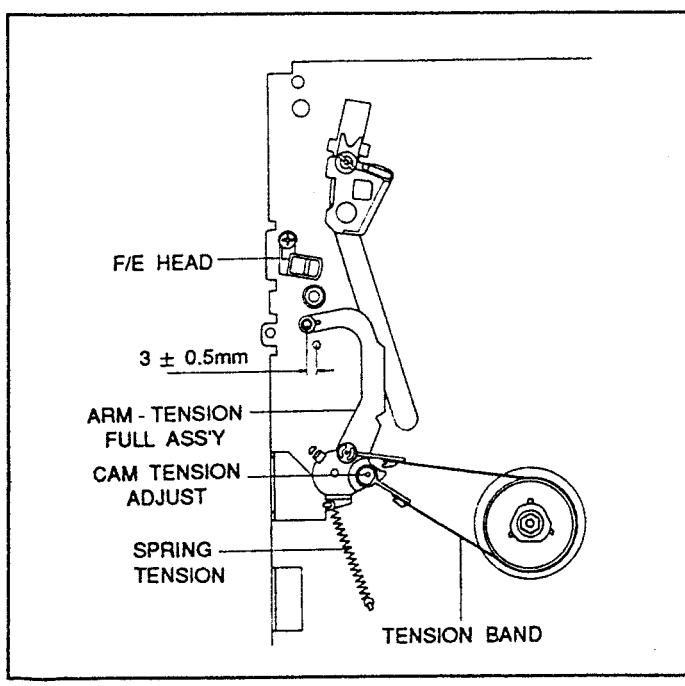


Fig. 17 Tension Pole and Back Tension Adjustment

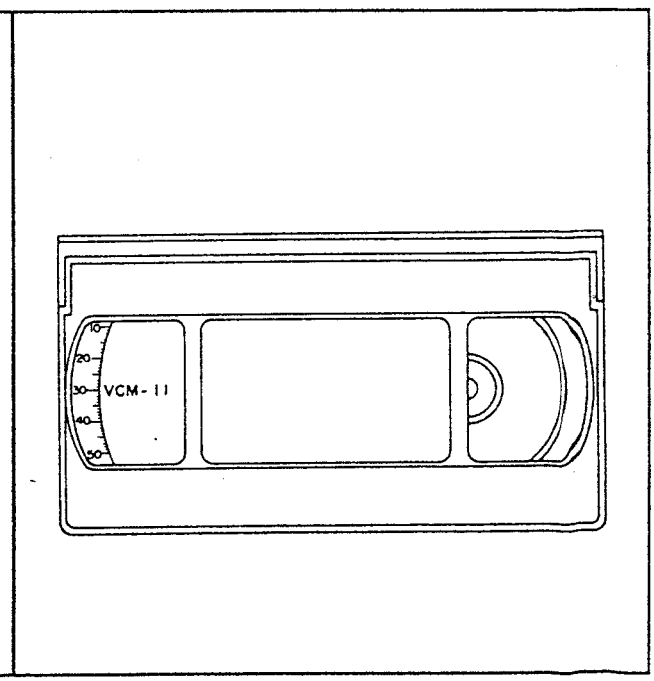


Fig. 18 Back Tension Tape Torque Cassette

TEST POINT LOCATION NO.

PAL SYSTEM

MODEL \ TP NAME	ENVELOPE	H'D S/W	CTL PULSE	AUDIO OUT	REMARK
SV-30IK/31IK/30B/30I/30E/30XK/31XK SV-40IK/40B/40Y/40XK SV-60XK SV-70IK/70E/70XK SV-80IK/80B/80Y/80XK	W105	W106	W107	W104	See page 73
SV-20FK/30FK/40FK SV-60FK/70FK/80FK SV-30K/40K/80K SV-40Z/80Z	TP04	TP07	TP06	TP08	See page 74
SV-10Y/10X SV-11K/11L/11I/11Q	TP5	TP4	TP3	TP6	See ppage 75
SV-120X/120F SV-140F/140I/140X	TP05	TP04	TP03	TP06	See page 76

M-PAL / N-PAL SYSTEM

MODEL \ TP NAME	ENVELOPE	H'D S/W	CTL PULSE	AUDIO OUT	REMARK
SV-80M/60M/61M/62M SV-80SN/60SN/61SN/62SN/63SN	TP302	TP202	TP201	TP804	See page 77

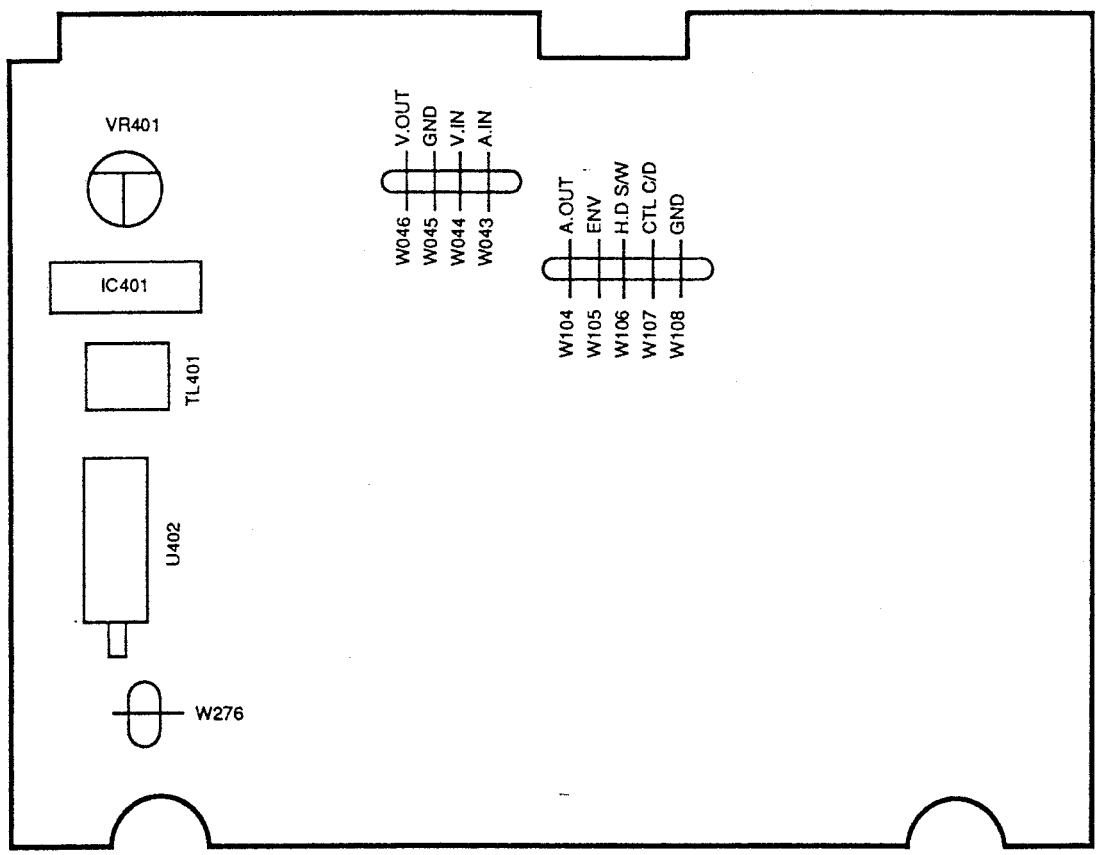
NTSC SYSTEM

MODEL \ TP NAME	ENVELOPE	H'D S/W	CTL PULSE	AUDIO OUT	REMARK
SV-20U/30U/40U/SV-60U/100U VR3705/3805/5705/5805/8705	TP302	TP202	TP201	TP804	See page 78
SV-70U/90U/120U/SV-140U/160U VR5855/5905/8805/8855/8905	W043	W042	W041	W054	See page 79

Note :
-. In case Model are not specified in above charts. TP Location-No & Lay out are on the S/Manual.
-. Please refer to after page 73 for TP Location-No of above models.

PCB LAY OUT (1)

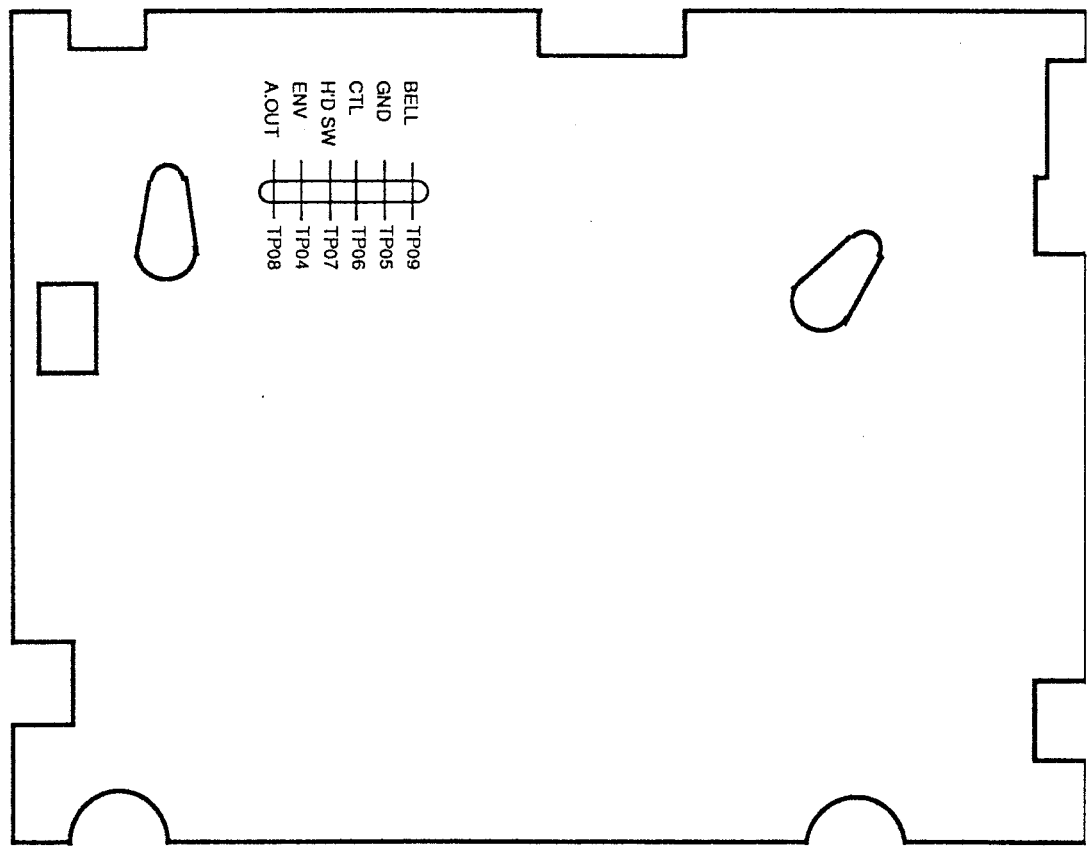
Application Models : SV-30IK/31IK/30B/30I/30E/SV-30XK
SV-40IK/40B/40Y/SV-40XK
SV-60XK
SV-70IK/70E/SV-70XK
SV-80IK/80B/80Y/SV-80XK



MAIN P.C.BOARD (TOP SIDE)

PCB LAY OUT (2)

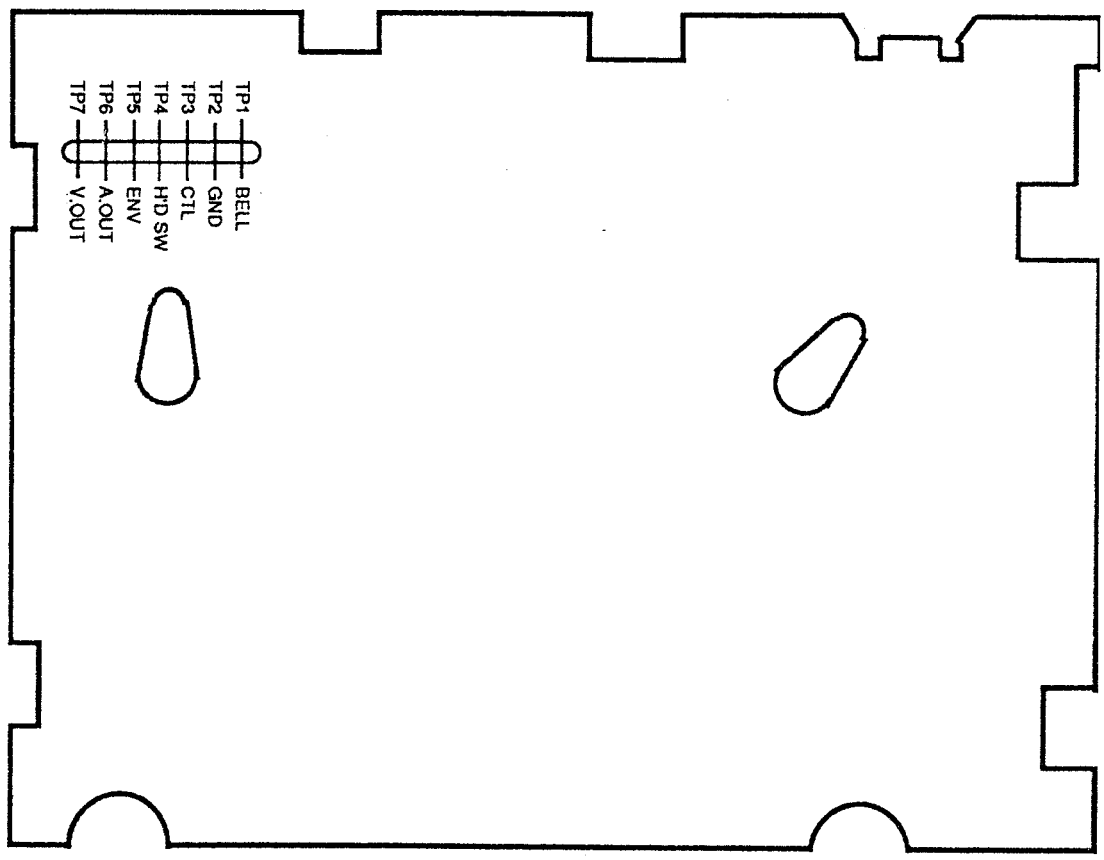
Application Models : SV-20FK/30FK/40FK/60FK/70FK/80FK
SV-30K/40K/80K
SV-40Z/80Z



MAIN P.C.BOARD (TOP SIDE)

PCB LAY OUT (3)

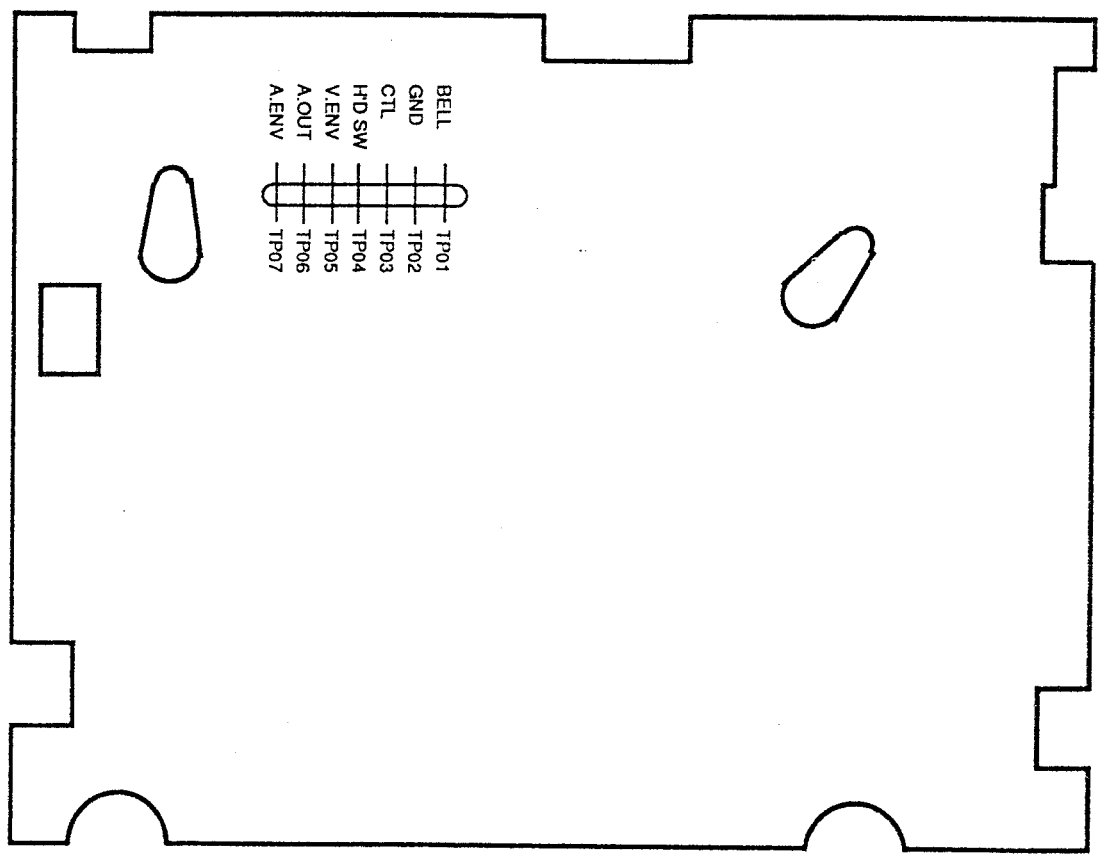
Application Models : SV-10 SERISE
SV-11 SERISE
SV-12 SERISE



MAIN P.C.BOARD (TOP SIDE)

PCB LAY OUT (4)

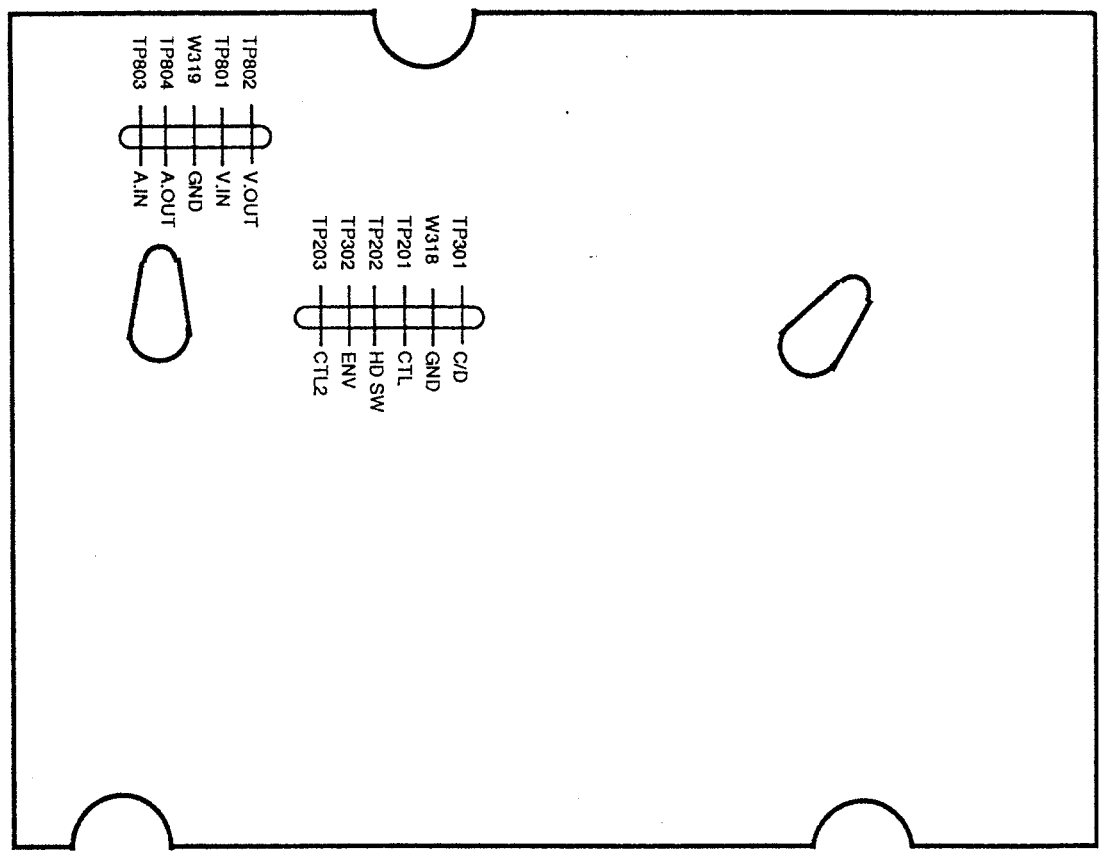
Application Models : SV-120 SERISE
SV-140 SERISE



MAIN P.C.BOARD (TOP SIDE)

PCB LAY OUT (5)

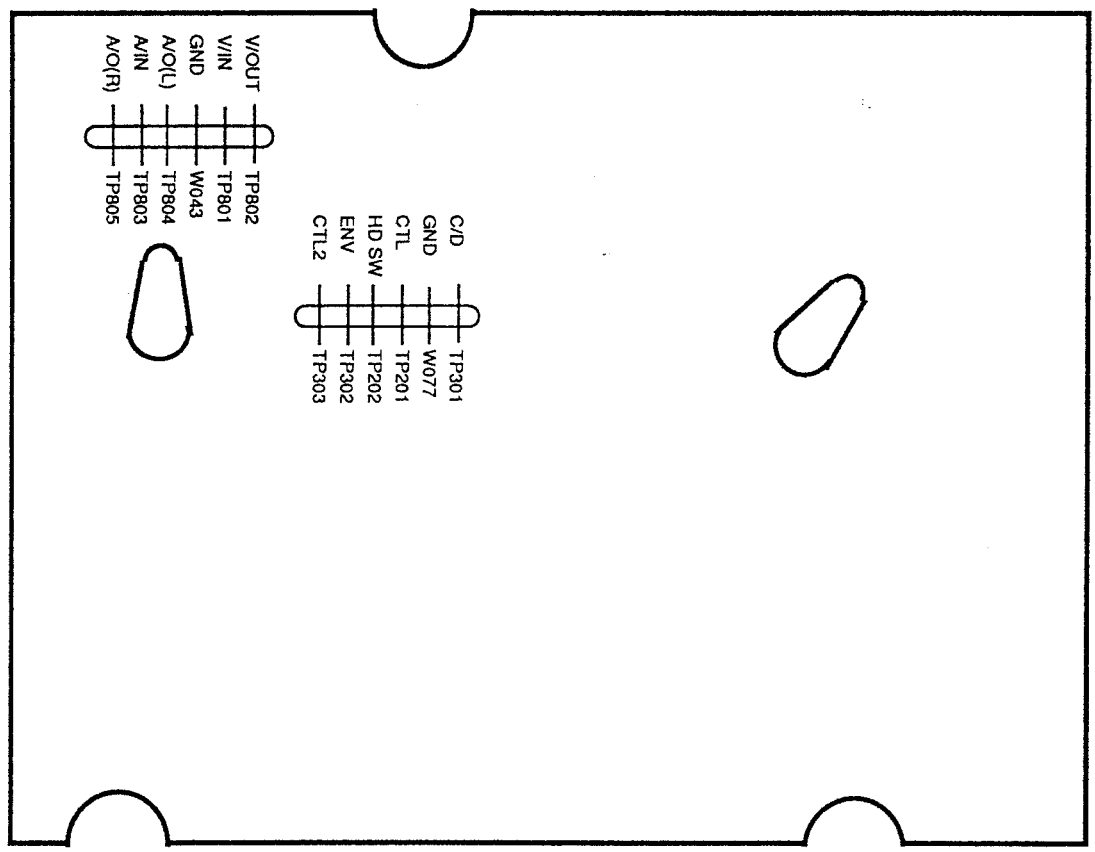
Application Models : SV-80M/60M/61M/62M
SV-80SN/60SN/61SN/62SN/63SN



MAIN P.C.BOARD (TOP SIDE)

PCB LAY OUT (6)

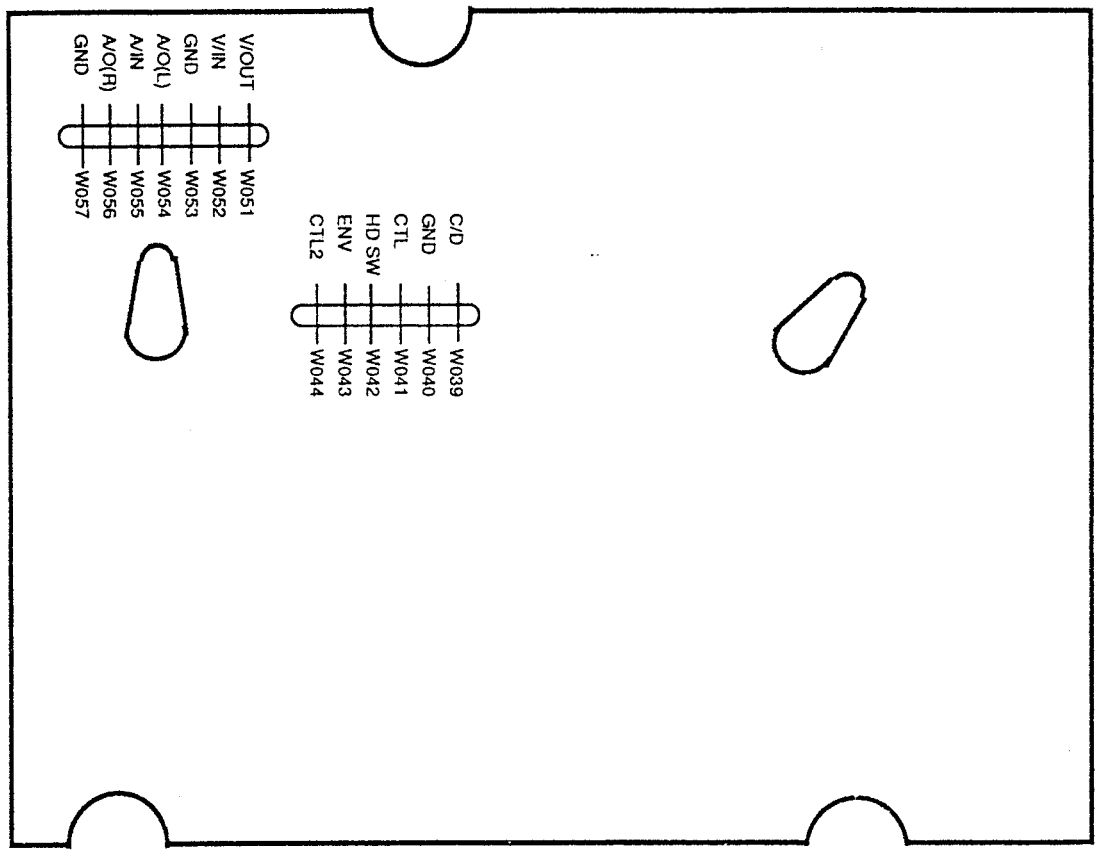
Application Models : SV-20U/30U/50U/60U/100U
VR3705, VR3805, VR5705, VR5805, VR8705



MAIN P.C.BOARD (TOP SIDE)

PCB LAY OUT (7)

Application Models : SV-70U/90U/1200U/160U
VR5805, VR5905, VR8805, VR8855, VR8905



MAIN P.C.BOARD (TOP SIDE)

V14305

SAMSUNG

VIDEO CASSETTE RECORDER

X-5(V-1) CHASSIS

VHS PAL

SERVICE Supplement

Subject : Video IC change

Note 1

1. According to the changing of video IC (IC302) from LA7439 to LA7449, the changed contents of peripheral circuit are included in this supplement.
   - Video block parts list
   - Video block schematic diagrams

2. When servicing, refer to this service supplement.

3. File this service supplement with service manual.

Note 2

Application model : Refer to the next page.

Application date : OCT. 1995.

Applicable Models and Part No. of Service Manual

Model	Part No.
SV-120F	64739-0083-00
SV-140F	64739-0102-00
SV-120X	64739-0093-00
SV-140X	64739-0044-00
SV-30K/DIN, SV-30K/CAF SV-80K/DIN, SV-80K/CAF	64739-0142-00
SV-30X	64739-0117-00
SV-40X	64739-0150-00
SV-80X	64739-0025-00
SV-80XK	64739-0043-00
SV-30XK/SV-31XK/SV-40XK	64739-0046-00
SV-60XK/SV-70XK	64739-0062-00
SV-34XK/SV-64XK/SV-74XK	64739-0101-00
SV-30IK/SV-31IK/SV-40IK	64739-0045-00
SV-41IK	64739-0153-00
SV-70IK/SV-80IK	64739-0063-00
SV-42IK/SV-82IK	64739-0084-00

1. Video Block Parts List

APPLICATION MODEL : SV-120F, SV-140F, SV-120X, SV-140X

Loca. No	Part No	Description & Specification	Remark
		VIDEO PARTS	
C323	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C328	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C331	A1100-0855	C-CERAMIC,CHIP;CK OB Y5P 50V 221-K 20X12 UCN053B22	
C332	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C333	A1100-0935	C-CERAMIC,CHIP;CK OB Y5P 50V 391-K C2012 UCN053B39	
C334	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C335	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C336	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C337	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C339	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C340	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C341	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C342	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C343	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C344	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C345	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C346	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C347	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C348	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C349	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C350	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C351	A1100-0447	C-CERAMIC,CHIP;CK OB A 50V 121-K 20X12 UCN053 A12	
C353	A1100-0438	C-CERAMIC,CHIP;CK OB A 50V 680-K 20X12 UCN053 A68	
C356	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C357	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C371	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C372	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C373	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C374	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C375	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C376	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C377	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C378	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C379	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C380	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C381	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C382	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C383	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C385	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C386	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C387	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C388	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C389	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C390	61637-204-100	C-ELEC;CEAP 16V 10M SA(5X11)	
C391	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C392	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
D304	62169-406-482	DIODE;1N4148 SAMSUNG	
D305	62169-406-482	DIODE;1N4148 SAMSUNG	
D306	62169-406-482	DIODE;1N4148 SAMSUNG	
D317	62169-406-482	DIODE;1N4148 SAMSUNG	
D318	62169-406-482	DIODE;1N4148 SAMSUNG	
D3S03	62169-406-482	DIODE;1N4148 SAMSUNG	SECAM ONLY
IC302	B4012-0567	IC-LINEAR;LA7449 DIP STICK	
IC303	B4012-0277	IC-LINEAR;LC89970 DIP	

Loca. No	Part No	Description & Specification	Remark
L307	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L311	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J	
L312	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J	
L313	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J	
L316	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L317	60509-400-115	WIRE SO COPPER;TA 0.5/52 m/m	
L318	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q305	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q306	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q307	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q310	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q311	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q315	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q316	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q320	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
R310	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R319	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R320	61048-177-222	R-CARBON;RD 1/8 T 222-J	
R325	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R326	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R327	A1020-0323	R-CHIP;RH 1/8 BS 272-J 20X12 RD3A2BY272J	
R328	A1020-0723	R-CHIP;RH 1/8 BS 681-J 20X12 RD3A2BY681J	
R330	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R333	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R334	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R335	61048-177-223	R-CARBON;RD 1/8 T 223-J	
R336	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R338	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R339	61048-177-823	R-CARBON;RD 1/8 T 823-J	
R340	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R341	61048-177-182	R-CARBON;RD 1/8 T 182-J	
R344	61048-177-823	R-CARBON;RD 1/8 T 823-J	
R345	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R358	A1020-0431	R-CHIP;RH 1/8 BS 223-J 20X12 RD3A2BY223J	
R359	A1020-0431	R-CHIP;RH 1/8 BS 223-J 20X12 RD3A2BY223J	
R360	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R361	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R362	61048-177-752	R-CARBON;RM 1/8 T 752-J	
R363	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R369	61048-177-273	R-CARBON;RD 1/8 T 273-J	
R370	61048-177-822	R-CARBON;RD 1/8 T 822-J	
R371	61048-177-152	R-CARBON;RD 1/8 T 152-J	
X301	B1280-0169	CRYSTAL;4.433619MHZ HC-49/U-S 15PPM SERIES TYPE	

APPLICATION MODEL : SV-30K/DIN, SV-30K/CAF, SV-80K/DIN, SV-80K/CAF

Loca. No	Part No	Description & Specification	Remark
		VIDEO PARTS	
C328	A1100-0076	C-CERAMIC,CHIP;CC 73 COG 50V T 680-J C2012 CL21C68	
C329	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C331	A1100-0628	C-CERAMIC,CHIP;CC 73 CH 50V T 201-J C2012	
C333	A1100-0935	C-CERAMIC,CHIP;CK OB Y5P 50V 391-K C2012 UCN053B39	
C334	A1100-0144	C-CERAMIC,CHIP;CC 73 COG 50V T 050-D C2012	
C335	A1100-0044	C-CERAMIC,CHIP;CK 73 X7R 50V T 223-K C2012 21B223K	
C336	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C337	A1100-0044	C-CERAMIC,CHIP;CK 73 X7R 50V T 223-K C2012 21B223K	
C338	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C339	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C340	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C341	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C342	A1100-0144	C-CERAMIC,CHIP;CC 73 COG 50V T 050-D C2012	
C343	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C344	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C348	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C349	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C350	A1100-0017	C-CERAMIC,CHIP;CK 73 Z5U 50V T 104-Z C2012 21F104Z	
C351	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C352	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C353	61507-121-551	C-POLYESTER;CQ921M TAPG 50V 473-J	
C354	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C355	A1100-0044	C-CERAMIC,CHIP;CK 73 X7R 50V T 223-K C2012 21B223K	
C358	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C360	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C361	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C364	A1100-0044	C-CERAMIC,CHIP;CK 73 X7R 50V T 223-K C2012 21B223K	
C365	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C366	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C367	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C369	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C370	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C372	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C374	61617-408-010	C-ELEC;CEAP 50V 1M RSS(4X7)	
C375	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C376	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C377	61637-204-470	C-ELEC;CEAP 16V 47M SA(5X11)	
C378	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C380	61637-206-100	C-ELEC;CEAP 35V 10M SA(5X11)	
C381	A1100-0036	C-CERAMIC,CHIP;CC 73 COG 50V T 121-J C2012	
C385	A1100-0070	C-CERAMIC,CHIP;CK 73 X7R 50V T 360-J C2012	
C386	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
C395	A1100-0011	C-CERAMIC,CHIP;CK 73 X7R 50V T 103-K C2012 21B103K	
D304	62169-406-482	DIODE;1N4148 SAMSUNG	
D307	62169-406-482	DIODE;1N4148 SAMSUNG	
D308	62169-406-482	DIODE;1N4148 SAMSUNG	
D313	62169-406-482	DIODE;1N4148 SAMSUNG	SV-80K ONLY
D315	62169-406-482	DIODE;1N4148 SAMSUNG	
D316	62169-406-482	DIODE;1N4148 SAMSUNG	
D317	62169-406-482	DIODE;1N4148 SAMSUNG	
D318	62169-406-482	DIODE;1N4148 SAMSUNG	
D351	62169-406-482	DIODE;1N4148 SAMSUNG	
D352	62169-406-482	DIODE;1N4148 SAMSUNG	
IC302	B4012-0567	IC-LINEAR;LA7449 DIP STICK	
IC303	B4012-0277	IC-LINEAR;LC89970 DIP	

Loca. No	Part No	Description & Specification	Remark
L301	62427-020-151	COIL PEAKING.AXIAL;LAL02TB 151J TAPG	
L311	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L312	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L313	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L314	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L316	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q304	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q308	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q309	62137-103-380	TRANSISTOR;KSA 733-Y TAPG	
Q312	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q317	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q318	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q319	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q350	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q351	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q352	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
R322	61079-917-242	R-CHIP;RH C2012 CS 242-J	
R325	61079-917-272	R-CHIP;RH C2012 CS 272-J	
R326	61079-917-681	R-CHIP;RH C2012 CS 681-J	
R327	61079-917-102	R-CHIP;RH C2012 CS 102-J	
R328	61048-177-273	R-CARBON;RD 1/8 T 273-J	
R329	61079-917-223	R-CHIP;RH C2012 CS 223-J	
R330	61079-917-103	R-CHIP;RH C2012 CS 103-J	
R331	61079-917-103	R-CHIP;RH C2012 CS 103-J	
R335	61079-917-152	R-CHIP;RH C2012 CS 152-J	
R336	61079-917-182	R-CHIP;RH C2012 CS 182-J	
R337	61079-917-512	R-CHIP;RH C2012 CS 512-J	
R338	61079-917-102	R-CHIP;RH C2012 CS 102-J	
R341	61079-917-822	R-CHIP;RH C2012 CS 822-J	
R342	61079-917-102	R-CHIP;RH C2012 CS 102-J	
R345	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R350	61079-917-823	R-CHIP;RH C2012 CS 823-J	
R351	61079-917-102	R-CHIP;RH C2012 CS 102-J	
R381	61079-917-223	R-CHIP;RH C2012 CS 223-J	
R382	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R383	61048-177-472	R-CARBON;RD 1/8 T 472-J	
R389	61079-917-242	R-CHIP;RH C2012 CS 242-J	
R390	61079-917-752	R-CHIP;RH C2012 CS 752-J	
R395	61079-917-102	R-CHIP;RH C2012 CS 102-J	
R396	61079-917-223	R-CHIP;RH C2012 CS 223-J	
R398	61048-177-823	R-CARBON;RD 1/8 T 823-J	
R399	61048-177-102	R-CARBON;RD 1/8 T 102-J	
XT01	64539-012-079	X-TAL;4.43 3619MHZ 8PPM TAPG	

APPLICATION MODEL (2 Head SP):SV-30X(K), SV-31XK, SV-40X(K)
(2 Head LP):SV-42IK, SV-41IK, SV-40IK, SV-31IK, SV-30IK

Loca. No	Part No	Description & Specification	Remark
		VIDEO PARTS	
C305	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
C307	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C308	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C310	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C311	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C312	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C314	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C315	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C316	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C319	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C320	A1100-0442	C-CERAMIC,CHIP;CC OB SL 50V 100-C 20X12 UCN053SL10	X(K) ONLY
C320	A1100-0443	C-CERAMIC,CHIP;CC OB SL 50V 150-J 20X12 UCN053SL15	IK ONLY
C321	61407-101-730	C-CERAMIC.TEMP;CC45 SL TAPG 50V 150-K	
C322	A1100-0496	C-CERAMIC,CHIP;CK OB A 50V 560-J 20X12 UCN053A560J	
C323	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C324	A1100-0507	C-CERAMIC,CHIP;CC OB SL 50V 180-J 20X12 UCN053SL18	X(K) ONLY
C324	A1100-0532	C-CERAMIC,CHIP;CC OB SL 50V 220-J 20X12 UCN053SL22	IK ONLY
C326	A1100-0445	C-CERAMIC,CHIP;CK OB SL 50V 470-J 20X12 UCN053SL47	X(K) ONLY
C326	A1100-0496	C-CERAMIC,CHIP;CK OB A 50V 560-J 20X12 UCN053A560J	IK ONLY
C327	61407-117-184	C-CERAMIC.AXIAL;CAX B TAPG 50V 181-K	
C328	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C329	A1100-0507	C-CERAMIC,CHIP;CC OB SL 50V 180-J 20X12 UCN053SL18	
C330	A1100-0494	C-CERAMIC,CHIP;CC OB SL 50V 330-J 20X12 UCN053SL33	
C333	A1100-0071	C-CERAMIC,CHIP;CC 73 COG 50V T 391-J C2012 21C 391	
C334	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C335	A1100-0044	C-CERAMIC,CHIP;CK 73 X7R 50V T 223-K C2012 21B223K	
C336	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C338	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C339	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C340	A1104-0612	C-ELEC;CE 04 -40/85 10V T 470-M SRE 6.3X5 47UF	
C341	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C342	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C343	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C344	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C345	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C346	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C348	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C349	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C350	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C352	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C353	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C354	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C355	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C356	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C357	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
C358	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C359	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C360	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C361	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C362	A1100-0062	C-CERAMIC,CHIP;CC 73 COG 50V T 221-J C2012 21C 221	
C364	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C365	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C366	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C367	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C368	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	

Loca No	Part No	Description & Specification	Remark
C369	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C370	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C371	A1100-0438	C-CERAMIC,CHIP;CK OB A 50V 680-K 20X12 UCN053 A68	
C374	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C375	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C376	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C377	A1104-0612	C-ELEC;CE 04 -40/85 10V T 470-M SRE 6.3X5 47UF	
C380	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C381	A1100-0036	C-CERAMIC,CHIP;CC 73 COG 50V T 121-J C2012	
C382	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C387	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C388	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C390	A1100-0436	C-CERAMIC,CHIP;CK OB,SL 50V 390-J 20X12 UCN053SL39	X(K) ONLY
C390	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	IK ONLY
C392	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C394	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C396	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C398	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	LP ONLY
C399	A1100-0080	C-CERAMIC,CHIP;CC 73 COG 50V T 820-J C2012 21C 820	
CN301	B6010-0852	CONNECTOR-WAFER;W323-HLEM08S-1 BLK	
D302	62169-406-482	DIODE;1N4148 SAMSUNG	
D303	62169-406-482	DIODE;1N4148 SAMSUNG	IK ONLY
D304	62169-406-482	DIODE;1N4148 SAMSUNG	
D307	62169-406-482	DIODE;1N4148 SAMSUNG	
D318	62169-406-482	DIODE;1N4148 SAMSUNG	
D350	62169-406-482	DIODE;1N4148 SAMSUNG	
D353	62169-406-482	DIODE;1N4148 SAMSUNG	
D360	62169-901-077	DIODE.CHIP;MA110-(TX)	LP ONLY
IC301	B4012-0165	IC-LINEAR;LA7411 DIP PRE-AMP	
IC302	B4012-0567	IC-LINEAR;LA7449 DIP STICK	
IC303	B4012-0277	IC-LINEAR;LC89970 DIP	
L302	62427-812-151	COIL-PEAKING;EL0606RA 150uH-J	
L303	62427-020-101	COIL PEAKING.AXIAL;LAL02TB 101J TAPG	
L304	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L305	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L307	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG	
L308	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG	
L309	62427-812-331	COIL-PEAKING;EL0606RA 330uH-J	
L314	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L315	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J	
L316	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L321	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L322	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG	
L331	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L350	62427-010-229	COIL-PEAKING.AXIAL;LAL02 TB 2.2UH TAPG	
L396	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q301	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q302	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q303	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q304	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q307	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q308	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q316	62137-701-013	TRANSISTOR;KSR 1004 TAPG	LP ONLY
Q319	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q325	62129-101-130	TRANSISTOR.CHIP;KSR 2102 (REEL)	
Q326	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)	
Q328	62129-101-080	TRANSISTOR.CHIP;KSA 812-G(REEL)	
R301	A1020-0782	R-CHIP;RH 1/8 BS 203-J 20X12	

Loca. No	Part No	Description & Specification	Remark
R304	A1020-0544	R-CHIP;RH 1/8 CS 104-J 20X12 RD3A2BY104J	
R305	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R307	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	X(K) ONLY
R307	A1020-0537	R-CHIP;RH 1/8 BS 202-J 20X12 RD3A2BY202J	IK ONLY
R309	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	X(K) ONLY
R309	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	IK ONLY
R310	A1020-0785	R-CHIP;RH 1/8 BS 241-J 20X12	
R311	A1020-0319	R-CHIP;RH 1/8 BS 751-J 20X12 RD3A2BY751J	
R312	A1020-0789	R-CHIP;RH 1/8 BS 271-J 20X12	
R314	A1020-0337	R-CHIP;RH 1/8 BS 821-J 20X12 RD3A2BY821J	
R315	A1020-0331	R-CHIP;RH 1/8 BS 221-J 20X12 RD3A2BY221J	
R316	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R317	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R318	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R321	A1020-0336	R-CHIP;RH 1/8 BS 561-J 20X12 RD3A2BY561J	
R323	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R324	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R325	A1020-0323	R-CHIP;RH 1/8 BS 272-J 20X12 RD3A2BY272J	
R326	A1020-0723	R-CHIP;RH 1/8 BS 681-J 20X12 RD3A2BY681J	
R327	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R328	A1020-0790	R-CHIP;RH 1/8 BS 273-J 20X12	
R329	A1020-0431	R-CHIP;RH 1/8 BS 223-J 20X12 RD3A2BY223J	
R330	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R331	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R335	61048-177-152	R-CARBON;RD 1/8 T 152-J	
R336	A1020-0325	R-CHIP;RH 1/8 BS 182-J 20X12 RD3A2BY182J	
R341	A1020-0339	R-CHIP;RH 1/8 BS 822-J 20X12 RD3A2BY822J	
R342	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R344	A1020-0325	R-CHIP;RH 1/8 BS 182-J 20X12 RD3A2BY182J	
R345	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	
R346	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R347	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R349	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R350	A1020-0333	R-CHIP;RH 1/8 BS 823-J 20X12 RD3A2BY823J	
R351	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R352	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R354	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R369	61048-177-561	R-CARBON;RD 1/8 T 561-J	
R370	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	
R371	A1020-0456	R-CHIP;RH 1/8 BS 752-J 20X12 RD3A2BY752J	
R372	61048-177-242	R-CARBON;RM 1/8 T 242-J	
R383	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R384	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R385	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R387	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	LP ONLY
R398	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R399	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
X301	B1280-0169	CRYSTAL;4.433619MHZ HC-49/U-S 15PPM SERIES TYPE	

APPLICATION MODEL : SV-80X(K); SV-70XK, SV-74XK, SV-60XK, SV-64XK, SV-80IK, SV-82IK

Loca. No	Part No	Description & Specification	Remark
		VIDEO PARTS	
C301	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C303	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C304	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C307	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C308	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C310	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C311	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C312	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C313	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C314	61637-208-010	C-ELEC;CEAP 50V 1M SA(5X11)	
C315	61617-404-470	C-ELEC;CEAP 16V 47M RSS(6.3X7)	
C316	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C318	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C319	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C320	A1100-0507	C-CERAMIC,CHIP;CC OB SL 50V 180-J 20X12 UCN053SL18	
C321	61407-101-730	C-CERAMIC.TEMP;CC45 SL TAPG 50V 150-K	
C322	A1100-0496	C-CERAMIC,CHIP;CK OB A 50V 560-J 20X12 UCN053A560J	
C323	A1100-0972	C-CERAMIC,CHIP;CC OB SL 50V 270-J 20X12 UCN053SL27	
C324	A1100-0443	C-CERAMIC,CHIP;CC OB SL 50V 150-J 20X12 UCN053SL15	
C326	A1100-0445	C-CERAMIC,CHIP;CK OB SL 50V 470-J 20X12 UCN053SL47	
C327	A1100-0472	C-CERAMIC;CK OA B 50V T 331-K CAX B TAPG 50V 331-K	
C328	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C329	A1100-0507	C-CERAMIC,CHIP;CC OB SL 50V 180-J 20X12 UCN053SL18	
C330	A1100-0494	C-CERAMIC,CHIP;CC OB SL 50V 330-J 20X12 UCN053SL33	
C333	A1100-0071	C-CERAMIC,CHIP;CC 73 COG 50V T 391-J C2012 21C 391	
C334	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C335	A1100-0044	C-CERAMIC,CHIP;CK 73 X7R 50V T 223-K C2012 21B223K	
C336	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C338	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C339	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C340	A1104-0612	C-ELEC;CE 04 -40/85 10V T 470-M SRE 6.3X5 47UF	
C341	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C342	A1100-0446	C-CERAMIC,CHIP;CK OB SL 50V 050-C 20X12/UCN053 SL0	
C343	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C344	61407-117-228	C-CERAMIC.AXIAL;CK OA F 25V 223Z/F 25V 223ZT	
C345	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C346	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C348	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C349	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C350	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C352	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C353	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C354	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C355	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C356	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C357	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
C358	A1100-0135	C-CERAMIC,CHIP;CK 73 X7R 50V T 473-K C2012 21B473K	
C359	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C360	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C361	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C362	A1100-0062	C-CERAMIC,CHIP;CC 73 COG 50V T 221-J C2012 21C 221	
C364	A1100-0960	C-CERAMIC,CHIP;CK OB Y5V 16V 223-Z 20X12 ECN153F22	
C365	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C366	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C367	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	

Loca. No	Part No	Description & Specification	Remark
C368	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C369	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C370	A1104-0611	C-ELEC;CE 04 -40/85 16V T 100-M SRE 3.5X5 10UF	
C371	A1100-0438	C-CERAMIC,CHIP;CK OB A 50V 680-K 20X12 UCN053 A68	
C374	A1104-0608	C-ELEC;CE 04 -25/85 50V T 010-M SRE 3X5	
C375	61407-117-101	C-CERAMIC.AXIAL;UP050F 104Z	
C376	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C377	A1104-0612	C-ELEC;CE 04 -40/85 10V T 470-M SRE 6.3X5 47UF	
C380	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C381	A1100-0036	C-CERAMIC,CHIP;CC 73 COG 50V T 121-J C2012	
C382	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C384	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C387	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C388	A1100-0958	C-CERAMIC,CHIP;CK OB Y5V 16V 103-Z 20X12 ECN053F10	
C390	A1100-0436	C-CERAMIC,CHIP;CK OB SL 50V 390-J 20X12 UCN053SL39	
C392	61407-117-104	C-CERAMIC.AXIAL;CAX Y TAPG 16V 103N-T	
C394	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C396	A1100-0961	C-CERAMIC,CHIP;CK 73 Y5V 25V 104-Z C2010 UMK210F10	
C399	A1100-0080	C-CERAMIC,CHIP;CC 73 COG 50V T 820-J C2012 21C 820	
CN301	B6010-0852	CONNECTOR-WAFER;W323-HLEM08S-1 BLK	
D301	62169-406-482	DIODE;1N4148 SAMSUNG	
D302	62169-406-482	DIODE;1N4148 SAMSUNG	
D304	62169-406-482	DIODE;1N4148 SAMSUNG	
D307	62169-406-482	DIODE;1N4148 SAMSUNG	
D318	62169-406-482	DIODE;1N4148 SAMSUNG	
D350	62169-406-482	DIODE;1N4148 SAMSUNG	
D353	62169-406-482	DIODE;1N4148 SAMSUNG	
IC301	B4012-0452	IC-LINEAR;LA7416 DIP BULK	
IC302	B4012-0567	IC-LINEAR;LA7449 DIP STICK	
IC303	B4012-0277	IC-LINEAR;LC89970 DIP	
L302	62427-812-181	COIL-PEAKING;EL0606RA 180uH-J	
L303	62427-020-101	COIL PEAKING.AXIAL;LAL02TB 101J TAPG	
L304	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L305	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L307	62427-020-560	COIL PEAKING.AXIAL;LAL02TB 560J TAPG	
L308	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG	
L309	62427-812-181	COIL-PEAKING;EL0606RA 180uH-J	
L314	62427-020-330	COIL PEAKING.AXIAL;LAL02TB 330J TAPG	
L315	62427-812-101	COIL-PEAKING;EL0606RA 100uH-J	
L316	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L321	62427-020-220	COIL PEAKING.AXIAL;LAL02TB 220J TAPG	
L322	62427-020-150	COIL PEAKING.AXIAL;LAL02TB 150J TAPG	
L331	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
L350	62427-010-229	COIL-PEAKING.AXIAL;LAL02 TB 2.2UH TAPG	
L396	62429-833-101	COIL-PEAKING AXIAL;BAL04ST 101K	
Q301	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q302	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q303	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q304	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q307	62137-302-740	TRANSISTOR;KSC 945-Y TAPG	
Q308	62137-701-013	TRANSISTOR;KSR 1004 TAPG	
Q319	62137-701-020	TRANSISTOR;KSR 2001 TAPG	
Q325	62129-101-130	TRANSISTOR.CHIP;KSR 2102 (REEL)	
Q326	62129-101-173	TRANSISTOR.CHIP;KSR 1104(REEL)	
Q328	62129-101-080	TRANSISTOR.CHIP;KSA 812-G(REEL)	
R301	A1020-0782	R-CHIP;RH 1/8 BS 203-J 20X12	
R302	A1020-0782	R-CHIP;RH 1/8 BS 203-J 20X12	
R304	A1020-0544	R-CHIP;RH 1/8 CS 104-J 20X12 RD3A2BY104J	

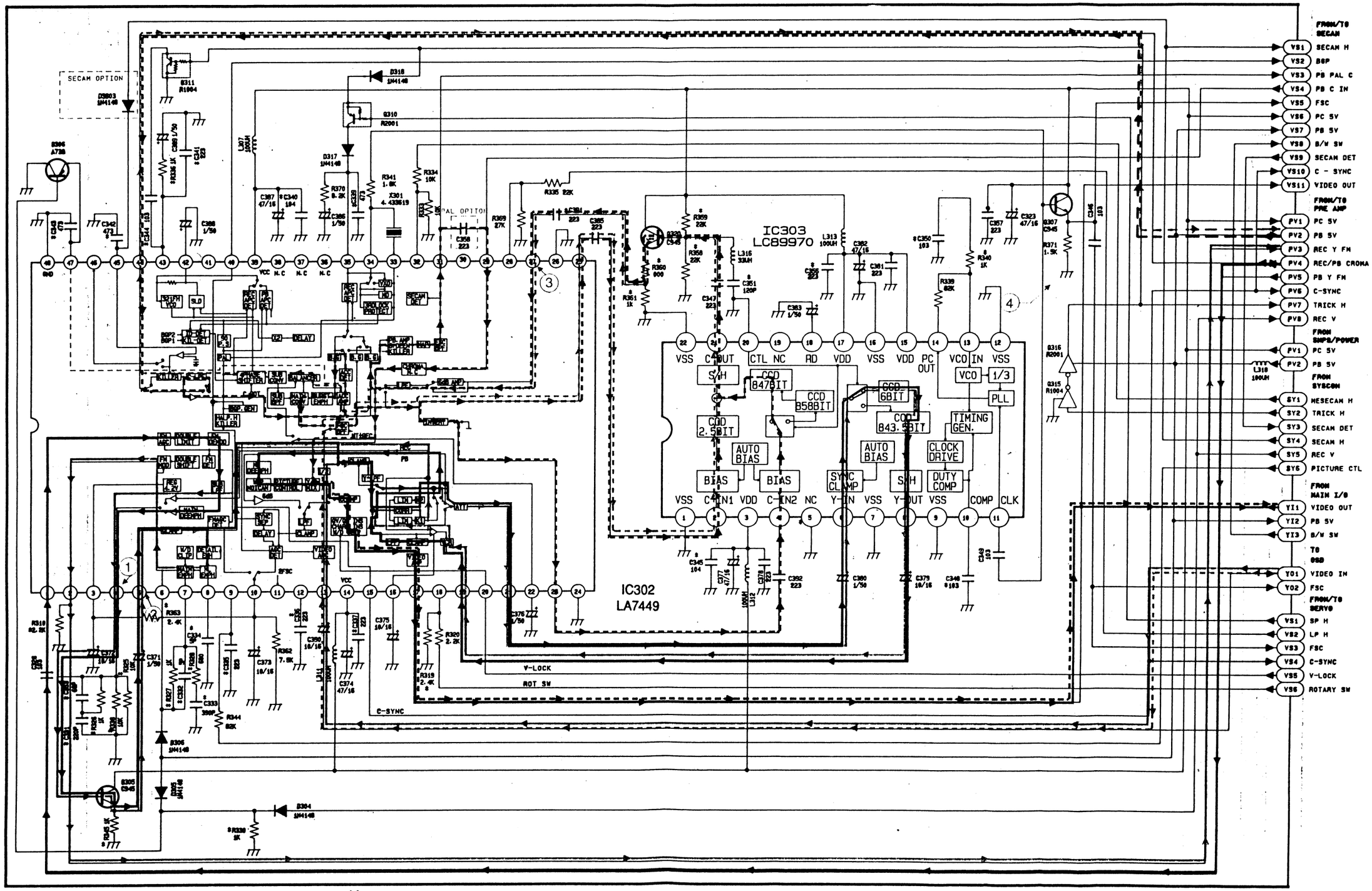
Loca. No	Part No	Description & Specification	Remark
R305	61048-177-563	R-CARBON;RD 1/8 T 563-J	
R307	A1020-0322	R-CHIP;RH 1/8 BS 222-J 20X12 RD3A2BY222J	
R309	A1020-0319	R-CHIP;RH 1/8 BS 751-J 20X12 RD3A2BY751J	
R310	A1020-0331	R-CHIP;RH 1/8 BS 221-J 20X12 RD3A2BY221J	
R311	A1020-0319	R-CHIP;RH 1/8 BS 751-J 20X12 RD3A2BY751J	
R312	A1020-0789	R-CHIP;RH 1/8 BS 271-J 20X12	
R314	A1020-0337	R-CHIP;RH 1/8 BS 821-J 20X12 RD3A2BY821J	
R315	A1020-0331	R-CHIP;RH 1/8 BS 221-J 20X12 RD3A2BY221J	
R316	A1020-0774	R-CHIP;RH 1/8 BS 123-J 20X12	
R317	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R318	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R321	A1020-0336	R-CHIP;RH 1/8 BS 561-J 20X12 RD3A2BY561J	
R323	A1020-0334	R-CHIP;RH 1/8 BS 391-J 20X12 RD3A2BY391J	
R324	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R325	A1020-0323	R-CHIP;RH 1/8 BS 272-J 20X12 RD3A2BY272J	
R326	A1020-0723	R-CHIP;RH 1/8 BS 681-J 20X12 RD3A2BY681J	
R327	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R328	A1020-0790	R-CHIP;RH 1/8 BS 273-J 20X12	
R329	A1020-0431	R-CHIP;RH 1/8 BS 223-J 20X12 RD3A2BY223J	
R330	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R331	61048-177-103	R-CARBON;RD 1/8 T 103-J	
R335	61048-177-152	R-CARBON;RD 1/8 T 152-J	
R336	A1020-0325	R-CHIP;RH 1/8 BS 182-J 20X12 RD3A2BY182J	
R341	A1020-0339	R-CHIP;RH 1/8 BS 822-J 20X12 RD3A2BY822J	
R342	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R344	A1020-0325	R-CHIP;RH 1/8 BS 182-J 20X12 RD3A2BY182J	
R345	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	
R346	A1020-0344	R-CHIP;RH 1/8 BS 122-J 20X12 RD3A2BY122J	
R347	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R349	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R350	A1020-0333	R-CHIP;RH 1/8 BS 823-J 20X12 RD3A2BY823J	
R351	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R352	A1020-0786	R-CHIP;RH 1/8 BS 242-J 20X12	
R354	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R369	61048-177-561	R-CARBON;RD 1/8 T 561-J	
R370	A1020-0455	R-CHIP;RH 1/8 BS 152-J 20X12 RD3A2BY152J	
R371	A1020-0456	R-CHIP;RH 1/8 BS 752-J 20X12 RD3A2BY752J	
R372	61048-177-242	R-CARBON;RM 1/8 T 242-J	
R383	61048-177-102	R-CARBON;RD 1/8 T 102-J	
R384	A1020-0320	R-CHIP;RH 1/8 BS 102-J 20X12 RD3A2BY102J	
R385	A1020-0441	R-CHIP;RH 1/8 BS 103-J 20X12 RD3A2BY103J	
R398	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
R399	A1020-0449	R-CHIP;RH 1/8 BS 000-J 20X12 CROSS CONDUCTOR RD3A2	
X301	B1280-0169	CRYSTAL;4.433619MHZ HC-49/U-S 15PPM SERIES TYPE	

2. Video Block Schematic Diagrams

Application model : SV-120F, SV-140F, SV-120X, SV-140X

RED ——— PB Y PROCESS ---------- PB C PROCESS

BLUE ——— REC Y PROCESS ---------- REC C PROCESS

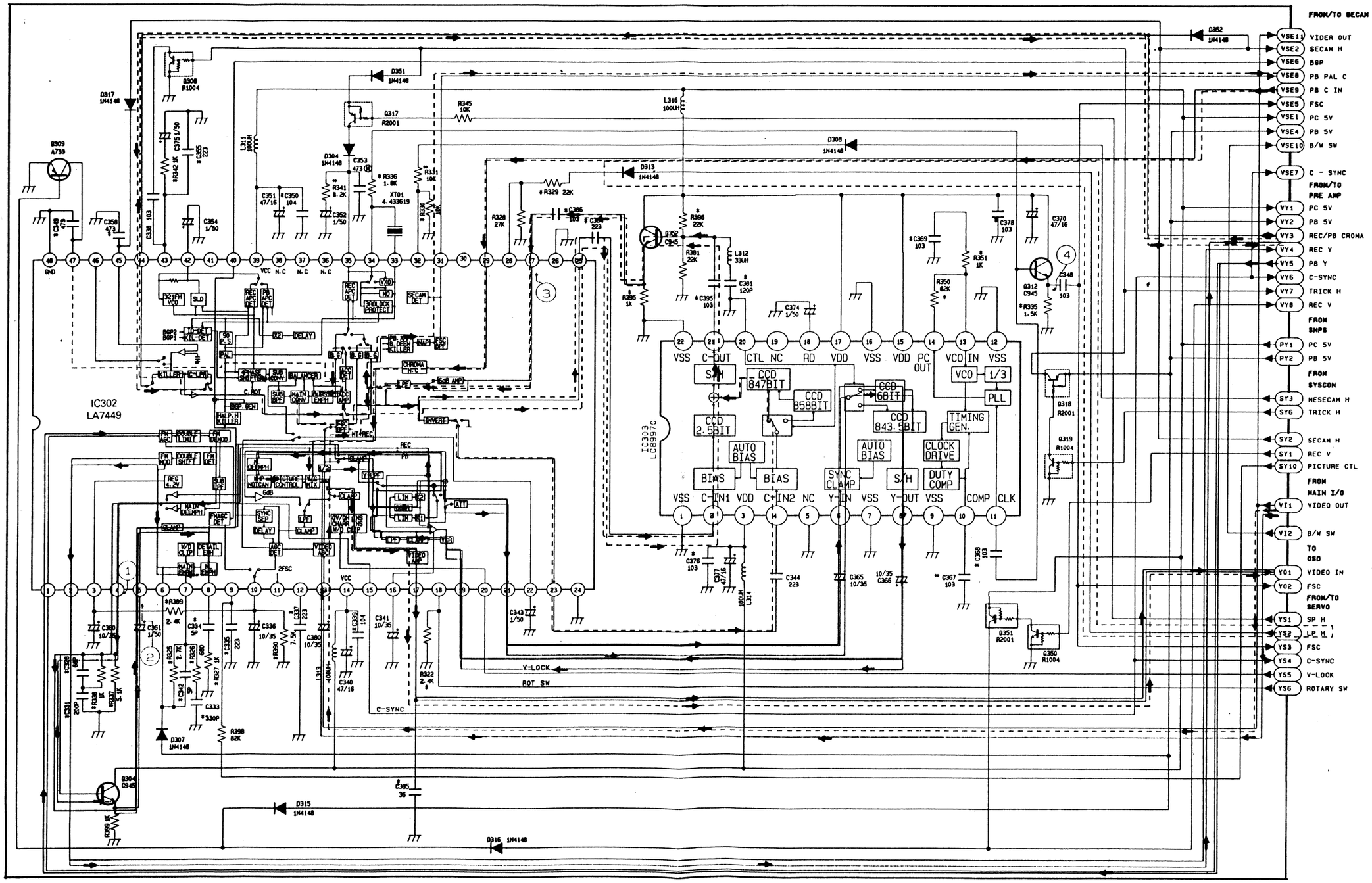


* : CHIP PARTS

Application model : SV-30K/DIN, SV-30K/CAF, SV-80K/DIN, SV-80K/CAF

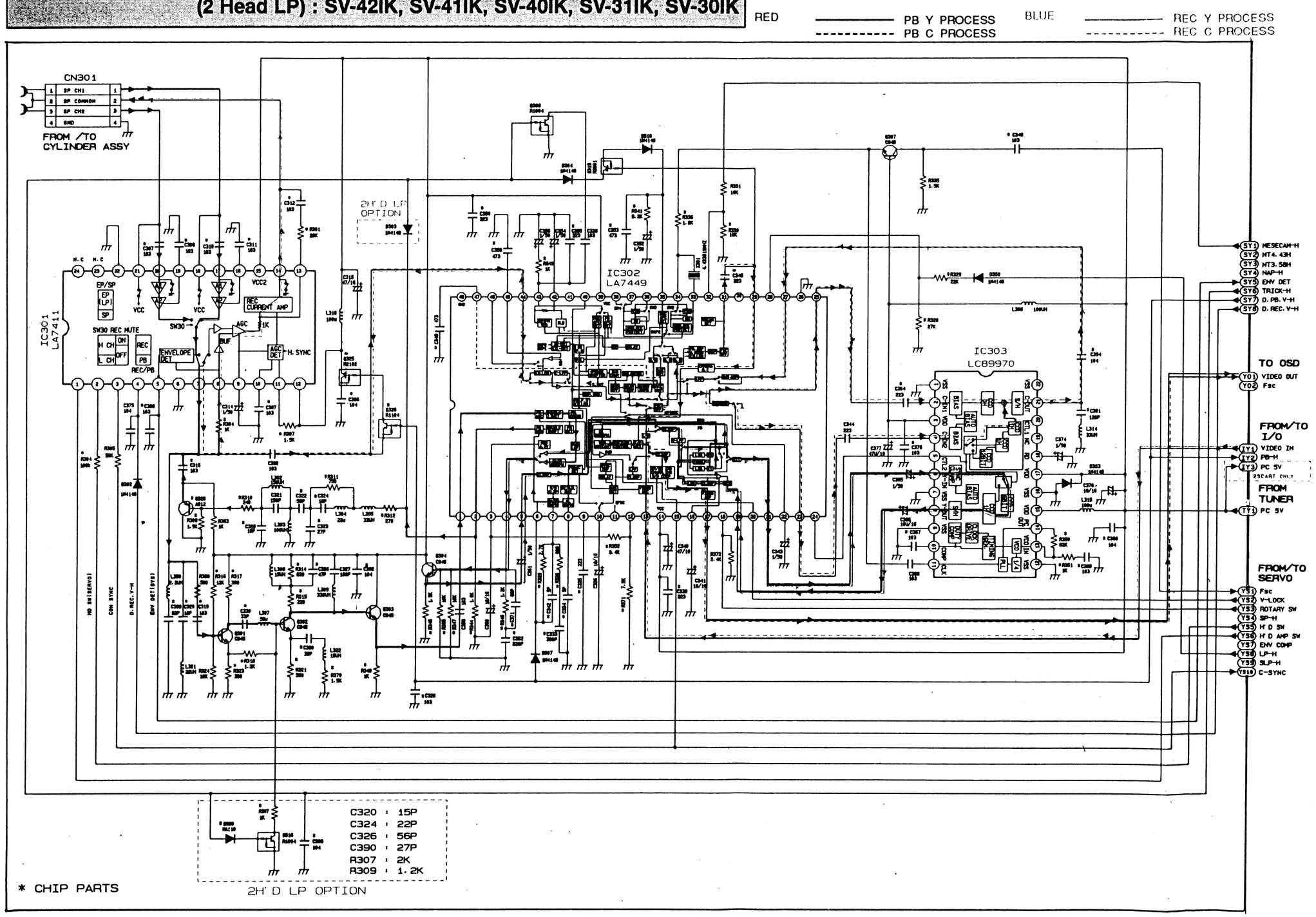
RED — PB Y PROCESS; ---------- PB C PROCESS

BLUE — REC Y PROCESS; ---------- REC C PROCESS

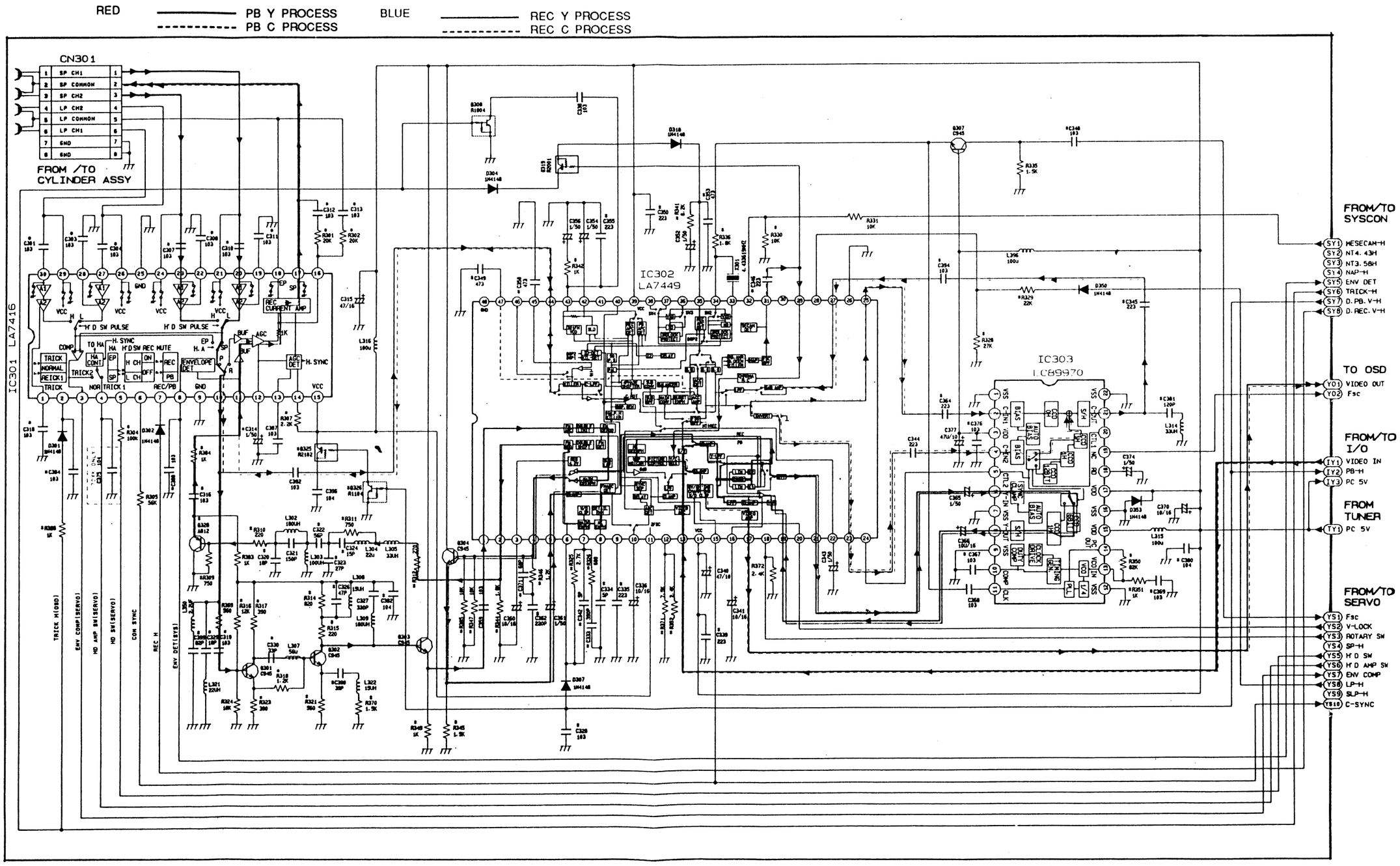


4H' D OPTION

Application model (2 Head SP) : SV-30X(K), SV-31XK, SV-34XK, SV-40X(K)
(2 Head LP) : SV-42IK, SV-41IK, SV-40IK, SV-31IK, SV-30IK



Application model (4 Head) : SV-80X(K), SV-70XK, SV-74XK, SV-60XK, SV-64XK, SV-80IK, SV-82IK



V14805

SAMSUNG

VIDEO CASSETTE RECORDER

X-5/X-6 CHASSIS

VHS

SERVICE Supplement

Subject : Addition of "Lever Push REC"

Note 1

1. The reason of addition :
   When cassette having scotch tape instead of safety tab is played back, cassette is ejected automatically.

2. Addition parts : Lever Push REC (Bottom side)
   Washer Slit

3. When servicing, refer to this service supplement.

4. File this service supplement with service manual.

Note 2

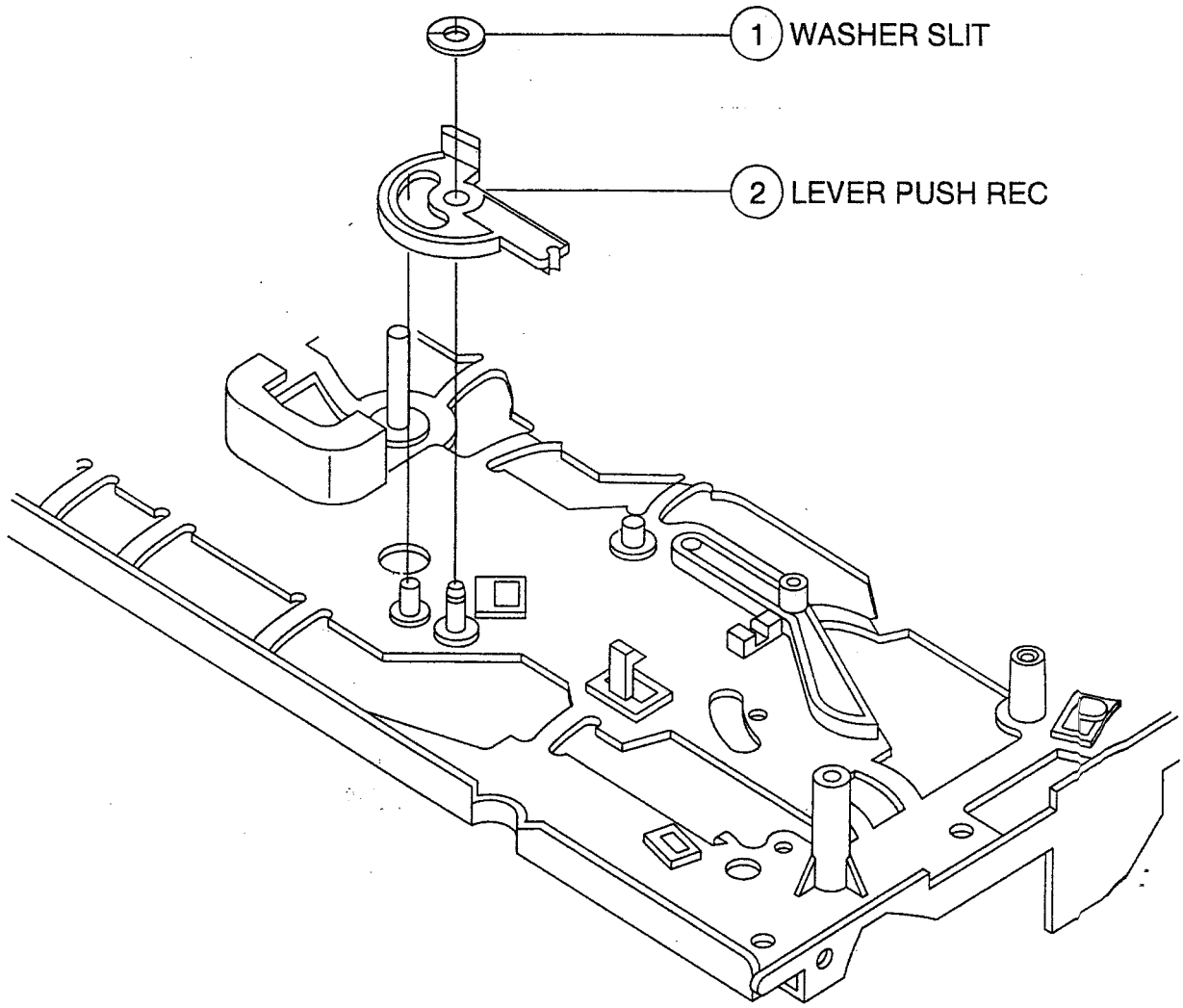
1. Application model :

1) DX5-R/DX5-RC, DX6-R/DX6-RC (64739-0067-00)
2) All models which are employed X-5/X-6 chassis.

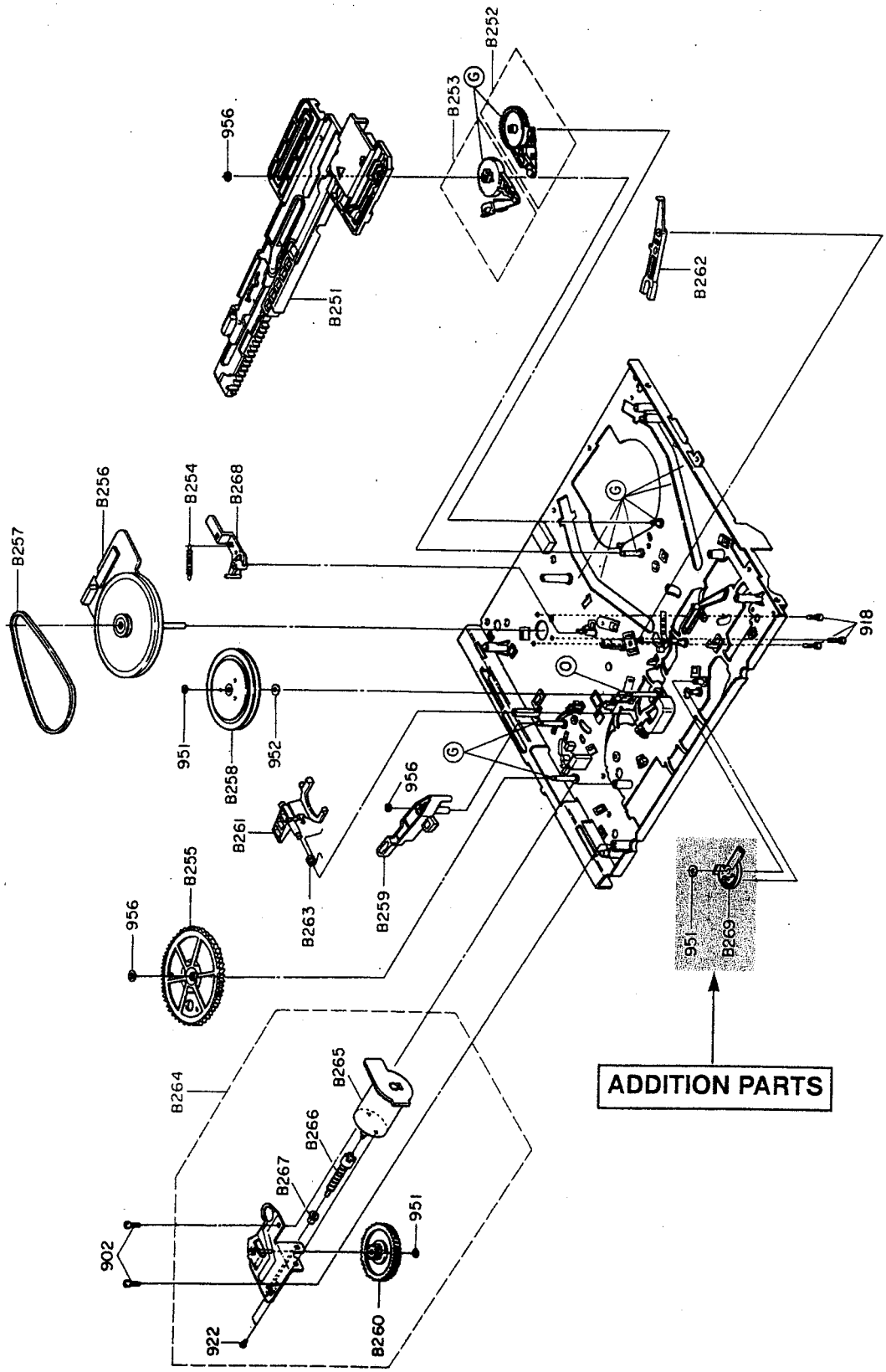
2. Application date : From April. 1996.

1. Lever Push REC Removal

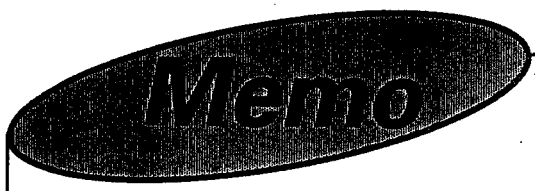
1) Remove the Washer Slit ①.
2) Lift the Lever Push REC ②.



2. Exploded View and Parts List (Mechanical Parts : Bottom Side)



Loc No	New Part No	Description and Specification	Remark	Old Part No
902	AC60-10051A	SCREW-TAPPING;BH,-,-,M3,L8,FZY		60509-0063-00
918	AC60-10006A	SCREW-MACHINE;BH,+190M3,-,L8,ZPC,SWRCH18A,-,		60504-0120-00
922	67008-130-171	SCREW PH;+M3X3 FE FZY		-
951	AC60-30025A	WASHER-SLIT;-,ID2.5,OD5.0,T0.5,POLY SLIDE,		67334-600-310
952	AC60-30018A	WASHER-PLAIN;PLAIN,M3.2,D6,T0.5,POLYSLIDER,		67304-103-410
956	AC60-30007A	WASHER-SLIT;PLAIN,ID2.5,OD7,T0.5,SPC1,-,-		60534-0034-00
958	AC60-30028A	WASHER-SLIT;-,D2.5,D9.0,T0.5,NUMIRROR,-,-		67334-601-830
B251	AC66-80001A	SILDER- MAIN;PBT2002K,T12.4,L206.2,NAT,DX-5		61641-0023-01
B252	AC66-20019A	GEAR-LOADING L ASSY;-,-,-,PACKAGE,-,X-5,-		61473-0107-00
B253	AC66-20069A	GEAR LOADING R;-,-,-,-,-,X5,-		61473-0105-00
B254	AC61-60115A	SPRING-BRAKE CAPSTAN;ES,SUS304WPB,PI0.4,D22,L16.1(		62724-0211-00
B255	AC66-20004A	GEAR-MASTER;POM (M90-44),M 1,Z 60,SP,-,X-5		61472-0104-01
B256	AC31-12001L	MOTOR-D.D CAPSTAN;F2QTB04,-,-		66823-0059-00
B257	AC66-62007A	BELT-CAPSTAN;5CM-70 FR,W2 T2 L88.6,-,-,-,-,		61494-0009-00
B258	AC66-20066A	CLUTCH ASSY		61453-0003-00
B259	AC66-32185A	LEVER-SLIDER PINCH;PBT,T4,NAT,-,-,-		61533-0095-00
B260	AC66-20016A	GEAR- WORM WHEEL;POM SW-01,M0.55/M1,Z57/Z10,GEA		61473-0102-00
B261	AC66-30011A	LEVER- SHIFT;PBT2002K,T10.9,L35,-,-,-		61533-0090-00
B262	AC66-30012A	LEVER- IDELR CHANGE;PBT330,T33,L50,-,W6.0,-		61533-0091-00
B263	AC61-60111A	SPRING-LEVER SHIFT;TS,SWPB,PI0.7,D5.5,L13.8(OD6.9		62724-0207-00
B264	AC59-90001A	UNIT-LOADING ASSY;X-5,-,-		67172-0173-00
B265	66823-0060-00	MOTOR-LOADING ASSY;POM+RF370C X-5		-
B266	AC66-20039A	GEAR- WORM LO;PBT 2002K,-,-,-,D4.5,3,-		61474-0103-00
B267	AC61-20224A	HOLDER SHAFT;POM M90-44,T1.25,NTR,PI5XH5.5,		63324-0299-00
B268	AC66-30149A	BRAKE CAPSTAN;-,-,-,-,X5,-		62614-0014-00
B269	AC66-30163A	LEVER PUSH REC;POM	ADDED	


Memo